

NOTICE

PREPARATORY TO AWARDING ANY FUTURE DEVELOPMENT OF MAINTENANCE CONTRACTS FOR THIS SYSTEM, USER AGENCIES AND SUPPORTING PROCUREMENT ACTIVITIES MUST ASSURE SELECTED CONTRACTOR FIRMS AGREE TO AND DECLARE, IN WRITING, CONTRACT PERFORMANCE WILL BE LIMITED TO U.S. CITIZEN PERSONNEL ONLY. THIS IS A MANDATORY REQUIREMENT DUE TO THE MILITARY CRITICAL TECHNOLOGIES AND TECHNICAL INFORMATION WITH UNIQUE MILITARY UTILITY ASSOCIATED WITH AFFECTED SOFTWARE AND SUPPORTING DOCUMENTS.

DESTRUCTION NOTICE

DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF DOCUMENT.

SUMMARY of CHANGE

AISM 25-V41-A08-AIX-DBDD
Installation Level Integrated Database (ILIDB)
Database Design Description (DBDD) Manual
20 September 1998

This updated manual--

- ? Replaces all previous versions of Database Design Description (DBDD) manual prepared in accordance with (IAW) Department of Defense (DOD) documentation standards MIL-STD-498, which was canceled on 27 May 1998.
- ? Adheres to the documentation standards contained in the Institute of Electrical and Electronics Engineers (IEEE)/Electronics Industries Association (EIA) standard, IEEE/EIA 12207, "Information Technology-Software Life Cycle Process".
- ? Provides an updated menu hierarchy diagram, entity relationship diagram, database schema and attributes, data dictionary, cross reference tables, and a list of ILIDB database error messages.
- ? Provides a blank copy of DA Form 2028 (Recommended Changes to Publications and Blank Forms). This form is at the end of the manual and users may reproduce and use it to write corrections, additions, or comments about the manual. Users may, also use it as cover sheet to a marked up copy of the ILIDB DBDD.
- ? Be advised that changes would be subject to approval by the appropriate Subject Area Functional Proponent (SAFP).

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1 SCOPE

1.1 IDENTIFICATION.

The following is a full identification of the Installation Level Integrated Database (ILIDB):

- a. Automated Information System (AIS) Identifier, which establishes the base functional components of a system: V41.
- b. System Identification Code (SIC) identifies the software tool methodology that the application is developed: A08.
- c. Title and Abbreviation: Installation Level Integrated Database (ILIDB)
- d. Previously fielded Release/Version Number: 07.01/07.00.
- e. Software Change Package (SCP) Release/Version number being developed/ fielded: V41-A08-08-01.

1.2 DATABASE OVERVIEW.

The purpose of this database for ILIDB is to describe the ILIDB database organization and to provide detailed logical and physical database information necessary to construct the parts of the ILIDB relational database such as records, tables keys, views and associated directories, and diagrams.

The ILIDB database is identified by “ilidbld” and is working database containing all ILIDB data elements required to support the ILIDB. This working database is called the subject area database (SADB) throughout ILIDB documentation.

The Installation Support Module (ISM) Project was established to create new software applications (or upgrade existing ones) that would automate standard procedures and integrate information used to manage army installations. These software applications are packaged as modules according to the installation management functions they perform. ISM is deployed army-wide and comprises a uniform set of automated tools that assists installation commanders in effectively managing daily operations.

ILIDB is part of the ISM Project, which is an army-wide Major Automated Information System (MAIS) initiative. The primary objective of ISM is to enhance, through automation, installation management functions. ISM applications consist of standard procedures packaged into functional applications, which automate as well as integrate day-to-day installation processes. ISM applications use Installation Level Integrated Database (ILIDB), which is the central repository for data that is common to more than one ISM application, and various local databases that contain data elements unique to the individual ISM applications.

ISM operates at garrison locations and support functional managers, use of ISM applications and data to manage resources under their control. ISM perform the following major functions:

- ? Application-specific support to meet the information needs of installation functional activities and tenant units;
- ? Command and staff reporting requirements via standard or ad hoc queries run against an application database or the ILIDB; and
- ? Information exchanged internally among installation functional activities and externally to echelons above installation levels, as well as to Standard Army Management Information Systems (STAMIS).

1.2.1 Organizational and Personnel References.

The following organizations and personnel maintain a responsibility of interest in the ISM application.

- a. ISM Functional Proponent. The ISM Functional Proponent (FP) is the Office of the

- Director of Information Systems for Command, Control, Communications, and Computers (DISC⁴).
- b. Application Sponsor. The application sponsor is the Director of Management (DM) Office Chief of Staff, Army (OCSA).
 - c. ISM/MISM FP. The ISM/MISM FP is the Office of the Director of Information Systems for Command, Control, Communications, and Computers (DISC⁴).
 - d. Assigned Responsible Agency (ARA). The ARA for technical development, testing, fielding and maintenance of this ISM application is the Information Systems Engineering Command (ISEC).
 - e. Point of Contact.
- | | |
|-------------------|---|
| Organization: | U.S. Army Information Systems Software Development Center
- Washington (USAISSDC-W)
ATTN: AMSEL-SE-IS-SDW-E-I, Stop H5, 6000, 6 th St.,
Suite S122A, Ft. Belvoir, VA 22060-5576 |
| Point of Contact: | Major Gale Harrington |
| Commercial Phone: | (703) 275-6941 |
| DSN: | 235-6941 |

1.3 DOCUMENT OVERVIEW.

The objective of this DBDD Manual for ILIDB is to describe the design of ILIDB database. The database is a collection of related data stored in one or more computerized files in a manner that can be accessed by users or computer programs via a database management system (DBMS). This also describes the software units used to access or manipulate the data. Use this DBDD as the basis for implementing the database and related software units. It provides the acquirer visibility into the design and provides information needed for software support.

1.3.1 Security.

ILIDB does not store or process classified data. ILIDB data is designated as unclassified sensitive-two (US-2), as defined in Army Regulations (AR) 380-19, "Information Systems Security (ISS)," 01 May 1996. This data is "*For Official Use Only (FOUO)*", and prohibits unauthorized disclosure.

- a. Authorization. An explicit official authorization or an implicit authorization based on official assignments and/or responsibilities is required to access ILIDB.
- b. Disclosure. You must not disclose personal information contained in ILIDB except as authorized by AR 380-19.

1.3.2 Security Guidelines for Using ILIDB.

The following guidance is provided to help users operate the system in accordance with applicable security provisions.

1.3.2.1 Modifying or Viewing Data.

Entering, modifying, deleting, or viewing ILIDB data is restricted to users who have explicit authorization to do so. System access is gained using a combination of login name, password, and access permission, which is determined by the system administrator. Login names and passwords shall be used only by the persons to whom, they were specifically, assigned.

- a. Screens. Adjust your Video Display Terminal (VDT) screen so that informational displays cannot be viewed by any unauthorized person.
- b. Accuracy. Enter or modify data carefully and completely, to avoid storing or transmitting erroneous or incomplete data.

1.3.2.2 Protecting Information Sources.

Safeguard all information input to or generated by the system against unauthorized use, copying, or destruction.

- a. Documents. Prevent unauthorized persons from viewing or accessing any documents, such as forms or manual files, by covering them or storing them in secure containers.
- b. Electronic Media. Label all electronic media, such as tapes or diskettes, and keep them in proper storage containers.

1.3.2.3 Other Theft.

This type of threat concerns the physical misappropriation of the computer containing the application program and its data bank/database. The system includes safeguards such as encryption of data elements, if appropriate, to prevent sensitive data from falling into the wrong hands by physical misappropriation of the system hardware.

1.3.2.4 Service Interruption/Degradation.

This type of threat is normally related to scheduled or unscheduled availability of the system to run the application as intended. The disruption may be due to power outages, environmental situations, etc. The system provides safeguards for restoring systems abnormally terminated/shut down.

1.3.2.5 Human Errors of Commission and Omission.

User carelessness or ignorance is responsible for this type of threat. The system provides safeguards by automatically performing edit checks for enumerated values, acceptable ranges, etc.

1.3.2.6 Privacy Violations.

This type of threat involves unauthorized release of personnel information protected under the Privacy Act of 1974, Section 5, United States Code 552a. Data elements identified as protected under the Privacy Act are safeguarded by the system through encryption, user access levels, or other controls as appropriate.

1.3.2.7 Sabotage.

An authorized user deliberately erasing or otherwise destroying system data files and/or back up file media must be prevented. The system periodically determines duration between system sessions and last system backup. The system also requires a backup to be generated if some predetermined number of sessions has occurred without the operator voluntarily performing a backup operation. The backup ensures that at least three separate backup copies are maintained. The system cycles these copies interactively.

1.3.2.8 Industrial/Military Espionage.

This threat normally involves a former user gaining access to the system for personal benefit. The system provides safeguards to require inactive USERIDs to be deleted from the system. The system also requires periodic mandatory change of authorized user passwords.

WARNING:

IT IS A VIOLATION OF FEDERAL LAW TO ACCESS, COPY, OR OTHERWISE USE GOVERNMENT COMPUTER RESOURCES WITHOUT SPECIFIC AUTHORIZATION. EACH ACCESS IS SUBJECT TO RECORDING AND AUDITING.

2 REFERENCED DOCUMENTS

2.1 PROJECT REFERENCES.

The following documents are helpful in understanding and performing the tasks described in this manual.

- a. Hardware Documentation
 - (1) IBM POWERstation and POWERserver - Diagnostic Information for Micro Channel Bus Systems, Version 4.2 - Part No. SA23-2765-01.
 - (2) IBM Adapters, Devices, and cable Information for Micro Channel Bus Systems, Version 4.2 - Part No. SA23-2764-01.
 - (3) IBM 7012 Models 300 Series - Installation and Service Guide - Part No. SA23-2624-07.
 - (4) IBM 7012 Models 300 Series - Operator Guide - Part No. SA23-2623-05.
- b. Software Documentation
 - (1) "MS-DOS User's Guide and Reference," Version 5.0/6.22.
 - (2) AIX Version 4.2 Quick Installation and Startup Guide.
 - (3) AIX Version 4.2 Installation Guide - Part No. SC23-2341.
 - (4) AIX Version 4.2 Getting Started - Part No. GC23-2521.
 - (5) AIX Version 4.2 System User's Guide: Operating System and Devices.
 - (6) AIX Version 4.2 System Management Guide: Operating System and Devices.
 - (7) AIX Version 4.2 Network Installation Management Guide and Reference.
 - (8) AIX Version 4.2, Information For Operation Retrieval/License System (iFOR/LS) System Management Guide.
 - (9) Oracle7TM for AIX-Based Systems Installation & Configuration Guide, Part No. A32105-1.
 - (10) Oracle7TM SQL*Plus User's Guide and Reference, Version 3.1.
 - (11) Oracle7TM Server SQL Language Reference Manual, Part Number 778-70-1292.
 - (12) A Technical Introduction to the Oracle Server" in the "Oracle7TM Server Concepts Manual".

3 DATABASE-WIDE DESIGN DECISIONS

3.1 DESIGN DECISIONS.

To satisfy ILIDB requirements, it is necessary to perform a variety of functions. These functions fulfill various objectives considered in designing ILIDB. Design decisions incorporating all necessary functions and related considerations were instrumental in the development of ILIDB to assure the system could use the database in the manner proposed. Among these functions and considerations are interactive responses, help text, error messages, input data, outputs, including reports, response time to queries and updates, data storage capacity, system maintenance and data backups. Users may interactively access data through ad hoc queries using Structured Query Language (SQL) or standardized queries.

3.2 DATABASE IDENTIFICATION.

The ILIDB database is identified by "ilidbld" and is a working database containing all ILIDB data elements required to support the ILIDB. This working database is called the SADB throughout ILIDB documentation.

3.2.1 Systems Using the Database.

The ILIDB is a 'stand alone' system, and it interfaces with the other ISM applications which share personnel information used among all the ISMs. However, this does not preclude the possibility that future versions of the ILIDB SADB will interface with other ISMs and STAMIS.

3.2.2 Relationship to Other Databases.

ILIDB will supersede the current field systems, which use either a manual paper tracking process, or in some instances, "home-grown" automated systems.

3.3 RDBMS.

ILIDB is designed using a Relational Database Management System (RDBMS) that will-

- a. allow installation -unique tables and attributes,
- b. provide integration with other portions of the installation central data repository previously developed,
- c. use data elements standardized IAW AR 25-9.

3.3.1 RDBMS Configuration.

The 'ilidbld' SADB is a relational database that may reside on any RDBMS that runs under the UNIX operating system environment and supports American National Standard Institute (ANSI) SQL. The 'ilidbld' SADB is currently being implemented for UNIX using the Oracle^{7TM*} SQL RDBMS, Version 7.3.3.

3.3.2 Hardware Configuration.

The 'ilidbld' SADB will reside on Portable Operating System Interface for Computing Environments (POSIX) compliant hardware. The installation hardware being used consists of a IBM RISC/6000 Model 7012-300 series computer containing all hard drives, backup tape drives, the system board, network interface cards (NIC), Random Access Memory (RAM), and necessary processors.

- a. Memory. The IBM RISC 6000 POWERstation and POWERserver System can be configured with as little as 64 megabytes (MB) or as much as 640 MB of 70 nanosecond (ns) RAM (in 64 MB increments). This RAM is based on industry standard 4 MB SIMM and proprietary RAM expansion boards, which can be added at the factory or any time after delivery.

- b. Central processing unit (CPU). The IBM RISC 6000 POWERstation and POWERserver System can contain either two or four processors. These are the Reduced Instruction Set Computer (RISC) integer unit and floating point unit processors. For ITP purposes, the 'four processor' configuration is being used.
- c. Bus. The IBM main processor bus is 64 bits wide with a bandwidth of 80 Mbps.
- d. Tape Device. An 8mm tape drive is required for the tape distribution of Oracle. The tape drive block size should be set to 512.
- e. Small Computer System Interface (SCSI) Devices. All SCSI-controlled peripheral devices, such as compact disk read only memory (CD ROM) drives, 8 millimeter (mm) tape drives, 1/4 inch tape drives are connected directly to the SCSI subsystem. Internal SCSI drives are connected using the on-board SCSI port.
- f. Controller. SQL*Net TCP/IP requires an adapter card that will support TCP/IP.

3.3.3 Database Software Utilities.

The following list of reference manuals gives detailed instructions on using Oracle^{7TM} database software utilities.

- a. Oracle^{7TM} for AIX-Based Systems Installation & Configuration Guide, Part No.A32105-1.
- b. Oracle^{7TM} SQL*Plus User's Guide and Reference, Version 3.1
- c. Oracle^{7TM} Server SQL Language Reference Manual, Part Number 778-70-1292.
- d. A Technical Introduction to the Oracle^{7TM} Server in the "Oracle^{7TM} Server Concepts Manual".

3.3.4 Security.

The security of database components, such as user views of schema, is controlled by the Subject Area Functional Administrator (SAFA), who grants or denies, access permissions using the ILIDB administration menu. The other levels of system security augments this application level security before entering ILIDB.

3.4 INPUTS AND OUTPUTS.

ILIDB is to be used as an interactive application. This means that it is designed for use from a terminal. ILIDB gets data residing in the application's specific SADB; however, ILIDB may also retrieve input from the ILIDB. Initially the majority of the data input requirements will be from the end user. But as users are added to the common SADB, more and more of the data needed, will be provided. In regard to output, reports will require you to specify a range of dates to begin and end the report. This is also true with making queries. Other times, you will provide a social security number (SSN) to locate specific information for an individual.

3.4.1 Inputs.

ILIDB is able to receive input data via magnetic media (diskette or tape) or electronic data transfer, either on-line directly from another system or via modem and download.

3.4.2 Outputs.

The USERID and passwords determines the production devices authorized to receive output. Output devices may be located within a local area network (LAN) and will consist of various models of both line-system printers and personal computer "slave" dot-matrix/laser printers. Output will also be provided to 28.8, 14.4, 9.6, and 2.4 KBPS modems for transmissions to external system printers and screens. Output may also be provided to exportable magnetic media such as floppy diskette or

cartridge tape.

3.4.3 Response to Inputs and Queries.

Response time extends from the receipt of input data to the availability of products. ILIDB edits interactive transactions and update tables on-line. Both invalid codes and inconsistent data elements (transaction and resident) are corrected at the time of input. The data will then be immediately available to all processes and sub-processes.

- a. Response time to queries and updates.
 - (1) Queries and updates for data input/update on an individual record will have an immediate response time of not more than one second, ninety percent of the time. This response time is the target for a directly connected device, which are not confused with communication-related lag times-communication lags attributed to dial-ins, communication controllers, multiplexors (MUXs), concentrators, LANs, etc. This target response time is a database design requirement.
 - (2) Queries and updates on multiple records provide adequate response in not more than one second, ninety percent of the time. These transactions take place within an installation, assuming adequate application connectivity is in effect.

3.4.4 Interfaces.

ILIDB interfaces with all ISM applications.

3.5 DATABASE/FILE APPEARANCE.

The data elements for ILIDB are integrated into a multifunctional database as part of the ISM-wide data architecture. By accessing this data architecture, each function within has a view of its data. This view will consist of multiple data elements that are contained in a row of one or more tables.

3.6 LABELING CONVENTIONS.

The ILIDB SADB is identified as ‘ilidbld’. Tables will have an owner identification of ‘ilidbld’, and the table names will be identified uniquely depending on the data/function they are related to.

3.7 ORGANIZATION OF THE DATABASE.

The ‘ilidbld’ SADB has been designed using relational logic to reside on any RDBMS that runs under the AIX operating system version 4.1 environment and supports ANSI SQL. The current ‘ilidbld’ SADB is implemented on Oracle7™ RDBMS version 7.1.6. Oracle7™ is an integrated multi-user package that can operate in a stand alone microcomputer environment.

3.7.1 Physical Allocation.

The Systems Administrator (SA) determines the physical allocation of the database based upon the physical disk space, number of transactions, and various performance need.

3.8 DATABASE MANAGEMENT USED.

The ILIDB runs on any UNIX platform using a SQL-compliant RDBMS.

3.8.1 Flexibility.

The ILIDB application design provides flexibility in five ways:

- a. ILIDB functions are independent of organizational structure. Functions are based on processes rather than people; therefore, it can easily withstand organizational structure

changes. A principal design consideration will incorporate functional modularity to facilitate timely implementation and system maintenance. Additional items or functions will be added, or changes made to the existing support module, if necessary. An Automation Working Group (AWG) has been established and will function as a clearinghouse for major support module changes as well as a quality assurance group. The AWG will work closely with the ISM FP in his position as chairman of the ISM Configuration Control Board (CCB).

- b. The ILIDB functional design minimizes dependence on the technical environment. ILIDB was designed functionally to be as independent of the technical environment as possible. The technical environment (e.g., hardware, word processor software, DBMS) may change over time; the ILIDB functional design will not.
- c. ILIDB is table driven. Wherever practical, ILIDB maintains system parameters likely to change or vary between sites in reference tables.
- d. Flexibility at individual installations is achieved through data manipulation by those, authorized access to the support module.
- e. As a system, ILIDB is designed to accommodate changes in requirements and/or its operating environment. During the design of this system, enhancements and changes in requirements have been incorporated periodically.

Because ILIDB is designed to use relational database technology, changes in structure and data are more easily accomplished. With this consideration in mind, the system is designed with a maximum amount of flexibility so as to adapt to future changes quickly and easily.

3.9 SECURITY.

The ISM Security Support Plan (SSP), in accordance with AR 380-19, Information Systems Security (ISS), and DOD 5200.28-STD, DOD Trusted Computer System Evaluation Criteria (TCSEC), categorizes the information processed by ILIDB as unclassified-sensitive two (US-2). This means that ILIDB processes unclassified information, which must be protected primarily to ensure its availability or integrity. Care should be taken to ensure that passwords are protected and that access to information in the ILIDB system, or reports produced by it, are not disclosed improperly or accidentally. Regulations require that each user be issued a unique USERID and password. All privileges of access and other authorization elements are associated with the USERID. The combination of user identification and accompanying authorizations are maintained in the USERID profile for each user.

A password is the protection mechanism by which the computer authenticates the user's identity and authorization to access information and functions as delineated in the USERID profile. ILIDB automatically denies any request for use of a privilege or access unless that USERID has been specifically granted that privilege or access.

Users have access to all the information they are entitled to (by virtue of formal access approval) and no more. Access to ILIDB data is restricted to users that have at least "connect" permission to the 'ilidbld' SADB. Persons having Database Administrator (DBA) permission authority can grant any level of permission, such as "connect," "resource," or "DBA," to other users, so access to these user accounts is strictly controlled through security administration.

The information contained in this application is designated as unclassified sensitive-two (US-2). US-2 is unclassified information, which primarily must be protected to ensure its availability and/or integrity. This information also requires protection from unauthorized personnel to ensure confidentiality. Examples of US-2 include information dealing with logistics, medical care, personnel management, Privacy Act data, contractual data and *FOUO* information.

Menu presentation is sensitive to user authorized access levels and only display those menu choices that the user has authorized access. Similarly, if the user tries to access a menu selection for which there is no data, then the user gets a warning message stating that there is no data available for the report before the user sends the report request to the printer or screen.

All data, which is subject to the Privacy Act, pursuant to Public Law 93-579, is handled in such a manner as to preclude unauthorized release of the information. The ILIDB support module contains sensitive, unclassified data.

3.10 DATABASE DISTRIBUTION, UPDATES AND MAINTENANCE.

Design decisions on database distribution, updates and maintenance relate to the host computers at the installations, which provides ISM application processing databases for client users, who gain access through workstations.

3.10.1 Distribution.

The support module distributes output products as on-line response to a process; electronic distribution (electronic mail, packet-switching transfer, and downloading) of a hard copy listing; or by printing and mailing of hard copy reports. The vulnerability to be guarded against in any distribution and disposition system is that the distribution can be made to an unauthorized position or person and an incomplete document can be delivered. Additionally, premature disposition can hamper validation and error correction.

3.10.2 Maintenance.

The system functional area supports the administration and maintenance of the automated ILIDB. This includes user account management, system backup and restore, generation of transactions, and correction of individual identifiers throughout the system. The successful operation of maintenance depends on the SA who performs regular system backups and can restore the database, if the ILIDB fails. When the SA performs a complete backup, all of the data in the ILIDB are copied onto a file in a suitable backup media. Later, the database may be restored to its state, the day of the backup, by restoring only this file. This copy defines a baseline from which incremental (or partial) backups may be made.

As the amount of data in the local database becomes very large, only a small percentage will be changed each day. If the SA performs an incremental backup, only the data that have changed since the last backup are copied to the backup medium. Incremental backups may be made several times after one complete backup. In the event of major data corruption, the complete backup is restored first. Then, each incremental backup is restored, in succession, until the database is restored with the contents as of the desired day. Occasionally, as the number of incremental backups increases, the SA will perform another complete backup to establish a new baseline date; the incremental process is then repeated.

3.10.3 Integrity.

The ILIDB is an unclassified, administrative system. It is assumed that the most likely threat to ILIDB data integrity is authorized users attempting to falsify data. The risk of unauthorized penetration of the system by outside parties is considered low. The installation SA will be responsible for computer hardware and software integrity. Backup and recovery are the most critical aspects of those responsibilities.

3.11 BACKUP AND RESTORATION.

Maintaining an alternative file storage area provides protection against delays, destruction of software and data. This storage level is mandatory for all Data Processing Installations (DPIs) that provide critical AIS support to the organization mission performance. This requires off-site storage of at least

one copy of all AIS files, programs, and procedures necessary to operate all high-priority applications, either at the processing site or at an alternate site. The alternate files storage area should be reasonably close to the processing site, but not subject to the same degree of major threat as the original site. It is usually recommended that the alternate files storage area be located at least one mile from the processing site.

3.12 STORAGE REQUIREMENTS.

Storage requirements for ILIDB workstations and file server were estimated for two specific areas. The data storage requirements were determined based on limited sizing information including size of installation and projected number of transactions.

The second area considered in estimating data storage requirements was the requirement for the system's operational capacity. Estimates for this type of data storage include requirements for the AIX OS version 4.1 ILIDB application and Oracle7TM database software, since all are necessary for ILIDB operation.

The IBM RISC/6000 Model 7012-300 series System can be configured with as little as 64 megabytes (MB) or as much as 640 MB of 70 nanosecond (ns) RAM (in 64 MB increments). This RAM is based on industry standard 4 MB Single Inline Memory Modules (SIMM) and proprietary RAM expansion boards, which can be added at the factory or any time after delivery.

3.12.1 Physical Mapping of Database Tables.

The ILIDB SADB is stored on disk in the form of relational tables. The tables are mapped to the ILIDB database, which contains general military personnel information shared by other ISMs.

4 DETAILED DESIGN OF THE DATABASE

4.1 DESIGN METHODOLOGY.

The ILIDB was designed using a structured methodology. This design and development effort included data modeling, normalizing to third normal form, and tuning the finalized data structure for the sake of efficiency. The organization of data and the use of standard data manipulation languages, such as INFORMIX, ORACLE and ANSI-SQL, allow for easy portability to other platforms. RDBMS is an important component in this design since its advantages are numerous.

4.1.1 Content.

There is no subordinate schema within ILIDB, and it uses shared personnel data from the ILIDB database.

4.1.2 Description.

For a description of the ILIDB schema, with its physical data element description including indexes and keys, refer to Sections 10, 11, and 12. All access restrictions are determined by the DBA.

4.1.3 Physical Structure.

Refer to Section 10.

4.1.4 Sizing.

Sizing is dependent on the workload and capacity of each installation. The number of records and transactions processed within each installation determines the amount of storage required for each installation's 'ilidbld' SADB. The ILIDB DBA monitors this.

4.1.5 Recovery.

Local policy and the operational environment control the frequency of backups. At a minimum, the total 'ilidbld' SADB is backed up at least once a day. ILIDB is an on-line processing application requiring no restart procedures within the application software.

The OracleTM RDBMS supports automatic rollback of all partially completed transactions resulting from hardware or software failures. All users performing data manipulation operations at the time of the failure are required to check the last activity performed to ensure that the transaction(s) were affected. Transactions entered prior to the last backup will be captured in the transaction log. If the 'ilidbld' SADB is destroyed, it can be rebuilt by first restoring it from the latest ILIDB backup tape followed by executing the transactions in the transaction log.

The DBA will assist functional users during restart/recovery procedures. For detailed information on SADB backup and recovery utilities, such as DBEXPORT, DBIMPORT, and DBSCHEMA, refer to Oracle 7 On-Line Administrator's Guide, Version 3.1, and Oracle 7TM On-Line User's Guide, Version 3.1.

4.1.6 Requirements Cross-Reference.

N/A.

4.2 TABLE INFORMATION.

4.2.1 Rationale.

One of the most important features of a RDBMS is its ability to join data from different tables. Instead of storing identical data in several tables, an RDBMS allows access to data from several tables at once and displays it as if it were stored in a single table. Joining lets you rearrange the view of a database and create new relationships. You can expand the scope of a database by joining new tables to existing

tables.

4.2.2 Content.

Section 10 contains the table names, data elements, and their attributes. The data dictionary is contained in Section 11.

4.2.3 Description.

Refer to Section 11.

4.2.4 Storage Control Parameters.

Database/table parameters will be determined by the following:

- a. Requirements of the database, such as number and content of tables and records.
- b. Storage available.
- c. Oracle7™ database documentation (procedures/instructions for creating and administering a database).

4.2.5 Recovery.

Local policy and operational environment control the frequency of backups. At a minimum, the total 'ilidbld' SADB is backed up at least once per day. ILIDB is an on-line processing ISM requiring no restart procedures within the application software.

The Oracle7™ RDBMS supports automatic rollback of transactions partially completed due to hardware or software failures. Each user performing data manipulation operations at the time of failure must check for the last active transaction to determine what transaction must be done again.

Transactions conducted since the last backup is captured on a transaction log. If the 'ilidbld' SADB is destroyed, it can be rebuilt by first restoring the latest backup and then executing the program which will apply the transaction log tape to the 'ilidbld' SADB. All work would be restored except for any transactions not captured on the transaction log.

The application DBA/SA will assist the functional users during restart/recovery procedures. The installation DBA/SA will assist functional users when necessary.

For detailed information on database backup and recovery utilities, such as DBEXPORT, DBIMPORT, and DBSCHEMA, refer to Oracle7™ On-Line Administrators Guide, Version 3.1 and Oracle7™ On-Line Users Guide, Version 3.1.

4.3 DATABASE DESIGN LEVEL.

The modelling levels presented here are suited to a top- down system development life cycle, in which successive levels of detail are created during each project phase. The highest level models come in two forms:

- ? Entity Relationship Diagram (ERD) and
- ? The Key Based (KB) Model

The ERD form identifies major application entities and their relationships. The KB model represents a third form relational model, which sets the scope of the application information requirement and delineates the detail.

The DBMS model adopted for this application is the area level information model. This model provides the "Area" scope for the integrated system.

An Area information model covers a broad application area, which is usually larger than the application single automation project. This model consists of both the ERD and KB model.

The ERD, is a high level information model, which shows the major entities and the relationships that support a wide application area. The objective of the ERD is to provide a view of application information requirements sufficient to satisfy the need for broad planning and development of its information system.

The KB model, is the third normal form information model, which describes the major data structures supporting a wide application area. The objective KB model provides a wide application view of data structures and those keys needed to support the area. This model provides a context in which detailed implementation level models are constructed. The model covers the same scope as the ERD, though in greater detail.

4.4 SUPPORT SOFTWARE AVAILABLE FOR HANDLING THE DATABASE

The objective configuration ILIDB will adhere to open systems architecture. Data information needs require the database management software to use a relational database with ANSI SQL capabilities. To enable interconnection to existing systems, X.25 with TCP/IP, Telnet, 3270 Systems Network Architecture (SNA) and standard synchronous and asynchronous communications software are required.

The current Army installation software environment is composed of DATACOM/DB, ROSCOE, CICS, UNIX/XENIX, MS-DOS, ORACLE, SQL/DS, XDB, DB2, IBM VM/VMS or VM/VSE operating system environment, COBOL and C compilers, in addition to other packages.

The Open Systems Environment (OSE) complies with the following:

- a. Operating System:
 - Multi-user, multi-tasking
 - POSIX compliant
 - Diagnostics/monitoring/control capabilities are accessible from a remote control center
 - ADA/SQL/GOSIP bindings are available
- b. Access Control Mechanisms:
 - Keyed to users (by userid)
 - Managed by a data administrator and a security officer
- c. Program Support:
 - ADA and APSE support
 - On-Line documentation available
 - 4GL/5GL applications generator available
 - SQL-compliant database access standard

The following are examples of software available for handling the database:

- a. Database analysis tools for reorganizing or changing data include a database definition and manipulation language that is an extension of the ANSI standard SQL.
- b. The DB-Monitor software utility is available for the initialization or resizing of the database. This program allows the
- c. Set up of the initial operating parameters including the server number, maintenance of logical logs and archives, tuning the Oracle^{7TM} On-Line parameters to use disk, memory, and recovery features effectively, and observe status of the system.
- d. Database utilities for saving and restoring the database and its data include dbexport, dbimport, dbschema, tbload, tbunload. These utilities are explained in detail within the

- Oracle7TM OnLine Administrator's Guide, Version 3.1.
- e. Oracle7TM OnLine has facilities to handle failures of both mirrored and non-mirrored media. For example, when the failed medium is mirrored and the primary disk partition, called a chunk is repaired or replaced, the DBA then executes ORACLE-OnLine to recover the chunk, and then it is brought on-line. For explicit details on recovering mirrored and non-mirrored media, reference Oracle7TM On-Line Administrator's Guide, Version 3.1.

5 SOFTWARE UNITS USED FOR DATABASE ACCESS OR MANIPULATION

5.1 DATABASE ACCESS AND MANIPULATION.

Only users who have explicit authorization are allowed to enter, modify, delete, or view ILIDB data. The SA administrates the system access using a combination of login name, password, and access permissions. Only, persons to whom login names and passwords are specifically assigned by the SA shall use them. The ILIDB administrator controls which user LOGIN ID has access to the specific ILIDB functions.

5.2 CURRENT ARMY INSTALLATION SOFTWARE ENVIRONMENT.

The current army installation software environment is comprised of DATACOM/DB, ROSCO, CICS, UNIX/XENIX, MS-DOS, ORACLE, SQL/DS, XDB, DB2, IBM VM/MVS or VM/VSE operating system environment, COBOL compilers, C compilers, and many other packages.

5.2.1 Software Units.

This paragraph has been tailored out. The software units that access or manipulate the database are described in "Software Design Descriptions (SDD).

5.3 SOFTWARE ENVIRONMENT.

The ILIDB runs on any UNIX System V platform against a SQL-compliant RDBMS. Terminals may consist of any ANSI 3.64 type or a personal computer (PC) with a similar emulation program. Printers, modems, and other peripherals will be site specific.

To successfully execute ILIDB, the system environment should consist of the hardware, software, and utilities designated in paragraphs 5.3.1 and 5.3.2.

NOTE: This ISM application is not dependent upon any one particular model of computer. The hardware described in the following paragraphs is one of the configurations possible for operating the ILIDB application.

5.3.1 Hardware Required

Hardware configurations required to support ILIDB are:

- a. Computer. IBM RISC/6000 39H.
- b. Local Computer Workstation. 386/486/586 class personal computer, a keyboard, a monitor, power strip/surge suppressor, communications interface.
- c. Printers. For reports high-resolution dot-matrix impact printer, with RS-232 serial communications interface and 132 column wide format.

5.3.2 Software Required

The software required to run ILIDB includes:

- a. Operating System (OS). AIX OS Version 4.2 Release Manual. The operating system supervises the work of the computer and provides software utilities.
- b. RDBMS. ANSI SQL-compliant Relational database management system (such as OracleTM ESQL/C Version 7.3.3). The database is a collection of data, information about indexes, and system catalogs that describe the structure of the database.
- c. ISM Application. This is the ILIDB application software that is used in host mode.
- d. Local Operating System. MS-DOS 5.0/6.22 disk operating system. This operating system controls the work of the local installation computer and provides local mode software utilities.

e. Local Communication Software. Various types of communications protocol software may be used, depending on your installation configuration. This software formats, arranges data for transmission and controls the transfer of data between computers.

5.3.3 Database/Data Bank Characteristics.

ILIDB is designed using a RDBMS that will:

- a. allow installation-unique tables and attributes.
- b. provide integration with other portions of the installation central data repository previously developed.
- c. use data elements standardized in accordance with (IAW) AR 25-9.

5.4 DATA INTERFACES.

The information that follows shows the context of ILIDB within the universe of STAMIS and systems with which it interfaces. These interfaces are described below, listed in priority order of establishing the interfaces.

- a. Installation Support Modules (ISM). The ILIDB interfaces with other ISM applications where its interface is mandatory and of critical importance. The various applications will receive selected personnel-related data from the Ilidb providing common-use information such as name, rank, location, etc., upon the identification of the soldier by a key field, such as SSN or its derivative. An easy-to-use, reliable, and timely method is required to effect corrections in the Ilidb and its source databases in cases where incorrect data are discovered and verified.
- b. MACOM/HQDA. This interface requirement includes the ability to send summary data from an installation to its parent MACOM and to HQDA. This interface is two-way; the requirement exists to receive data from the MACOM and HQDA level. An electronic mail (E-Mail) capability is available to link installation users to the MACOMs and HQDA.

5.5 ERROR HANDLING.

With each SQL statement, ILIDB checks whether an error has occurred. If one has occurred, a message is sent to the user in a form similar to the following:

SQL ERROR:

ERROR: -284 A Database Error has occurred. Please contact your database administrator to take the required action.

Refer to Oracle-SQL Reference Manual, version 7.0.

5.6 MESSAGES.

ILIDB error messages are listed alphabetically by label in Section 9. Where the necessary corrective action is not self-explanatory, an explanation is given.

6 REQUIREMENTS TRACEABILITY.

Information pertaining to this section is currently unavailable.

7 NOTES

7.1 SPECIAL INSTRUCTIONS.

The following document references contain instructions to be followed by personnel who generate the 'ILIDB' SADB and use it for testing and operations. These references include Oracle7™ documentation that gives specific information about Oracle7™ database administration.

- a. Oracle7™ for AIX-Based Systems Installation & Configuration Guide, Part No.A32105-1.
- b. Oracle7™ SQL*Plus User's Guide and Reference, Version 3.1
- c. Oracle7™ Server SQL Language Reference Manual, Part Number 778-70-1292.
- d. "A Technical Introduction to the Oracle Server" in the "Oracle7™ Server Concepts Manual".

7.2 DATABASE SOFTWARE UTILITIES.

The following list of reference manuals gives detailed instructions on using Oracle7™ database software utilities.

- a. Oracle7™ Server documentation.
- b. Oracle7™ Tools documentation.
- c. Oracle7™ Server Concepts Manual.
- d. Oracle7™ Server Utilities User's Guide.
- e. Oracle7™ Server Administrator's Guide.
- f. Oracle7™ Server SQL Language Reference manual.
- g. Oracle7™ Server Messages and Codes manual.

8 TERMS AND ABBREVIATIONS

<u>Terms</u>	<u>Explanation</u>
Chunk	A large continuous section of disk space for ORACLE-On Line.
Disk Mirroring	Storing the same data on two disks simultaneously.
Transaction	A collection of one or more SQL statements that is treated as a single unit of work.
Transaction Log	Called a logical log. A file containing a list of all changes that were performed on a database during the period the log was active.

Abbreviations:

<u>Acronyms</u>	<u>Definition</u>
AISM	Automated Information System Manual
ANSI	American National Standards Institute
AR	Army Regulations
ARA	Assigned Responsible Agency
AWG	Automation Working Group
DBA	Database Administrator
DBDD	Database Design Description
DOD	Department of Defense
ERD	Entity Relationship Diagram
FD	Functional Description
FOUO	For Official Use Only
FP	Functional Proponent
IAW	In Accordance With
ILIDB	Installation Level Integrated Database
ISM	Installation Support Module
ISS	Information Systems Security
KB	Key Based
LAN	Local Area Network
MB	Megabytes
OS	Operating System
POSIX	Portable Operating System Interface for Computer Environment
RAM	Random Access Memory
RDBMS	Relational Database Management System
SA	Systems Administrator
SADB	Subject Area Database
SCSI	Small Computer System Interface
SIMM	Single Inline Memory Module
SQL	Structured Query Language
SSN	Social Security Number
STAMIS	Standard Army Management Information Systems
STRAP	Structure Requirements Analysis Planning
US-2	Unclassified Sensitive-Two

9 ILIDB ERROR MESSAGES

ILIDB error messages are listed below, alphabetically by label. Where the necessary corrective action is not self-explanatory, it is explained below the message.

ERROR -236

Number of columns in INSERT does not match number of VALUES.

Corrective Procedure: Check that the number of columns in the table or in the column list matches the number of values in the VALUES clause or the SELECT clause.

ERROR -237

Cannot begin work.

Corrective Procedure: Check the ISAM error number for information about the source of the problem. Exit the ORACLE-SQL session. Contact the SA for help interpreting the ISAM error number.

ERROR -238

Cannot commit work.

Corrective Procedure: Your log file may be corrupted. Check the ISAM error number about the source of the problem.

ERROR -239

Could not insert new row--duplicate value in a UNIQUE INDEX column.

Corrective Procedure: This row contains a value which already exists in the column (indexed as unique) of an existing row. Enter a new value for the column or remove the unique index on the column.

10 ILIDB DATABASE SCHEMA AND ATTRIBUTES

```

{ DATABASE ilidbld delimiter | }

grant dba to "oracle";
grant dba to "ilidb";

{ TABLE "ilidb".list row size = 17 number of columns = 2 index size = 19 }
create table "ilidb".list
(
  ind_ssn.....char(9).....not null,
  datestamp .....char(8).....not null
) LOCK MODE ROW;
revoke all on "ilidb".list from "public";
create unique index "ilidb".ix100_1 on "ilidb".list (ind_ssn);

grant select on "ilidb".list to "public" as "ilidb";
grant update on "ilidb".list to "public" as "ilidb";
grant insert on "ilidb".list to "public" as "ilidb";
grant delete on "ilidb".list to "public" as "ilidb";
grant index on "ilidb".list to "public" as "ilidb";

{ TABLE "oracle".civilian row size = 30 number of columns = 8 index size = 19 }
create table "oracle".civilian
(
  ind_ssn.....char(9).....not null,
  civ_pay_plan_cd .....char(2),
  civ_py_gr_lvl_nr.....char(2),
  civ_rt_sc_dt.....char(8),
  civ_occ_ser_nr.....char(5),
  civ_empl_step_nr.....char(2),
  civ_rt_prg_cd.....char(1),
  civ_mil_rt_cd.....char(1)
);
revoke all on "oracle".civilian from "public";
create unique index "oracle".civilian_idx on "oracle".civilian (ind_ssn);
{ TABLE "oracle".cmsnd_off row size = 21 number of columns = 4 index size = 19 }
create table "oracle".cmsnd_off
(
  ind_ssn.....char(9).....not null,
  co_cr_mgmt_CNTL_cd.....char(2),
  off_esa_dt.....char(8),
  co_basic_BR_cd.....char(2)
);
revoke all on "oracle".cmsnd_off from "public";
create unique index "oracle".cmsnd_off_idx on "oracle".cmsnd_off (ind_ssn);
{ TABLE "oracle".enl_occ_spec row size = 17 number of columns = 6 index size = 21 }
create table "oracle".enl_occ_spec
(
  ind_ssn.....char(9).....not null,
  occ_spc_desig_cd.....char(1).....not null,
  enl_mos_id.....char(3),
  enl_skl_lvl_nr.....char(1),
  enl_sqi_cd.....char(1),
  enl_asi_cd.....char(2)
);
revoke all on "oracle".enl_occ_spec from "public";
create unique index "oracle".enl_occ_spec_idx on "oracle".enl_occ_spec (ind_ssn,occ_spc_desig_cd);
{ TABLE "oracle".enl_mos_master row size = 8 number of columns = 6 index size = 13 }
create table "oracle".enl_mos_master
(
  enl_mos_id.....char(3).....not null,
  enl_skl_lvl_nr.....char(1).....not null,

```

```

enl_sqi_cd.....char(1).....not null,
low_auth_gr.....char(1),
high_auth_gr.....char(1),
mil_auth_sex_cd .....char(1)
);
revoke all on "oracle".enl_mos_master from "public";
create unique index "oracle".enl_mos_mstr_idx on "oracle".enl_mos_master (enl_mos_id, enl_skl_lvl_nr,
enl_sqi_cd);
{ TABLE "oracle".enl_mos_lookup row size = 6 number of columns = 3 index size = 15 }
create table "oracle".enl_mos_lookup
(
enl_mos_id.....char(3).....not null,
enl_skl_lvl_nr.....char(1).....not null,
enl_asi_cd.....char(2).....not null
);
revoke all on "oracle".enl_mos_lookup from "public";
create unique index "oracle".enl_mos_lkup_idx on "oracle".enl_mos_lookup (enl_mos_id, enl_skl_lvl_nr,
enl_asi_cd);
{ TABLE "oracle".ind_assoc row size = 64 number of columns = 13 index size = 22 }
create table "oracle".ind_assoc
(
ind_ssn.....char(9).....not null,
rel_id .....char(2).....not null,
ind_fmlly_mbr_cd.....char(2),
indiv_name .....char(27),
birth_dt.....char(8),
ind_fmlly_ssn.....char(9),
ind_sex_code.....char(1),
ind_unifd_svc_cd.....char(1),
depn_indic_cd.....char(1),
separate_addr_cd .....char(1),
ind_benif_cd.....char(1),
ind_assoc_src_cd.....char(1),
app_flag.....char(1)
);
revoke all on "oracle".ind_assoc from "public";
create unique index "oracle".ind_assoc_idx on "oracle".ind_assoc (ind_ssn,rel_id);
{ TABLE "oracle".pers_test row size = 22 number of columns = 5 index size = 25 }
create table "oracle".pers_test
(
ind_ssn.....char(9).....not null,
pers_test_typ_cd.....char(2).....not null,
per_tst_apt_ar_cd .....char(2).....not null,
apt_score_qy.....char(3),
apt_yr_mo_dt.....char(6)
);
revoke all on "oracle".pers_test from "public";
create unique index "oracle".pers_test_idx on "oracle".pers_test (ind_ssn, pers_test_typ_cd, per_tst_apt_ar_cd);
{ TABLE "oracle".warr_off row size = 19 number of columns = 3 index size = 19 }
create table "oracle".warr_off
(
ind_ssn.....char(9).....not null,
wo_mgmt_br_cd .....char(2),
off_esa_dt.....char(8)
);
revoke all on "oracle".warr_off from "public";
create unique index "oracle".warr_off_idx on "oracle".warr_off (ind_ssn);
{ TABLE "oracle".wo_occ_spec row size = 17 number of columns = 5 index size = 21 }
create table "oracle".wo_occ_spec
(
ind_ssn.....char(9).....not null,

```

```

occ_spc_desig_cd.....char(1).....not null,
wo_mos_id.....char(4),
wo_sqi_cd.....char(1),
wo_asi_cd.....char(2)
);
revoke all on "oracle".wo_occ_spec from "public";
create unique index "oracle".wo_occ_spec_idx on "oracle".wo_occ_spec (ind_ssn,occ_spc_desig_cd);
{ TABLE "oracle".wo_mos_master row size = 6 number of columns = 3 index size = 13}
create table "oracle".wo_mos_master
(
wo_mos_id.....char(4).....not null,
wo_sqi_cd.....char(1).....not null,
mil_auth_sex_cd .....char(1)
);
revoke all on "oracle".wo_mos_master from "public";
create unique index "oracle".wo_mos_mstr_idx on "oracle".wo_mos_master (wo_mos_id,wo_sqi_cd);
{ TABLE "oracle".wo_mos_lookup row size = 6 number of columns = 2 index size = 15 }
create table "oracle".wo_mos_lookup
(
wo_mos_id.....char(4).....not null,
wo_asi_cd.....char(2).....not null
);
revoke all on "oracle".wo_mos_lookup from "public";
create unique index "oracle".wo_mos_lkup_idx on "oracle".wo_mos_lookup (wo_mos_id,wo_asi_cd);
{ TABLE "oracle".unit row size = 164 number of columns = 15 index size = 24 }
create table "oracle".unit
(
un_svc_dsg_cd .....char(1).....not null,
un_porg_dsg_id .....char(3).....not null,
un_descr_dsg_id .....char(2).....not null,
org_id.....char(6),
un_office_sym.....char(16),
unit_name.....char(30),
stru_command_cd .....char(2),
org_addr_city_nm.....char(17),
org_addr_ctry_cd.....char(2),
org_addr_forn_nr .....char(9),
org_addr_gtwy_ab .....char(3),
org_adr_state_ab.....char(2),
org_addr_zip_cd .....char(9),
org_addr_loc_tx.....char(60),
org_addr_gtwy_cd .....char(2)
);
revoke all on "oracle".unit from "public";
create unique index "oracle".unit_idx on "oracle".unit (un_svc_dsg_cd, un_porg_dsg_id, un_descr_dsg_id, org_id);
{ TABLE "oracle".unit_auth_str row size = 24 number of columns = 9 index size = 19 }
create table "oracle".unit_auth_str
(
un_porg_dsg_id .....char(3).....not null,
un_descr_dsg_id .....char(2).....not null,
mil_asg_posn_nr.....char(4).....not null,
auth_occ_spec .....char(5),
army_mil_rank_ab.....char(3),
army_mil_rank_cd.....char(2),
mil_auth_sex_cd .....char(1),
auth_asi_cd .....char(2),
req_lang_cd .....char(2)
);
revoke all on "oracle".unit_auth_str from "public";
create unique index "oracle".unit_auth_st_idx on "oracle".unit_auth_str (un_porg_dsg_id, un_descr_dsg_id, mil_asg_posn_nr, auth_occ_spec, army_mil_rank_ab);

```

```

{ TABLE "oracle".cmd_cd_lookup row size = 62 number of columns = 2 index size = 9 }
create table "oracle".cmd_cd_lookup
(
  stru_command_cd .....char(2).....not null,
  command_name.....char(60)
);
revoke all on "oracle".cmd_cd_lookup from "public";
create unique index "oracle".cmd_cd_lkup_idx on "oracle".cmd_cd_lookup (stru_command_cd);
{ TABLE "oracle".cmsnd_occ_spec row size = 15 number of columns = 4 index size = 21 }
create table "oracle".cmsnd_occ_spec
(
  ind_ssn.....char(9).....not null,
  occ_spc_desig_cd.....char(1).....not null,
  cmsnd_off_aoc_id .....char(3),
  com_off_skill_cd.....char(2)
);
revoke all on "oracle".cmsnd_occ_spec from "public";
create unique index "oracle".co_occ_spec_idx on "oracle".cmsnd_occ_spec (ind_ssn, occ_spc_desig_cd);
{ TABLE "oracle".co_aoc_master row size = 4 number of columns = 2 index size = 10 }
create table "oracle".co_aoc_master
(
  cmsnd_off_aoc_id .....char(3).....not null,
  mil_auth_sex_cd .....char(1)
);
revoke all on "oracle".co_aoc_master from "public";
create unique index "oracle".co_aoc_mstr_idx on "oracle".co_aoc_master (cmsnd_off_aoc_id);
{ TABLE "oracle".co_aoc_lookup row size = 5 number of columns = 2 index size = 13 }
create table "oracle".co_aoc_lookup
(
  cmsnd_off_aoc_id .....char(3).....not null,
  com_off_skill_cd.....char(2).....not null
);
revoke all on "oracle".co_aoc_lookup from "public";
create unique index "oracle".co_aoc_lkup_idx on "oracle".co_aoc_lookup (cmsnd_off_aoc_id, com_off_skill_cd);
{ TABLE "oracle".ind_phone row size = 40 number of columns = 5 index size = 24 }
create table "oracle".ind_phone
(
  ind_ssn.....char(9).....not null,
  ind_telnr_type_cd.....char(1).....not null,
  inf_telnr_pur_cd .....char(1).....not null,
  inf_tele_sys_cd.....char(1).....not null,
  inf_telephone_nr.....char(28)
);
revoke all on "oracle".ind_phone from "public";
create unique index "oracle".ind_phone_idx on "oracle".ind_phone (ind_ssn, ind_telnr_type_cd, inf_telnr_pur_cd,
inf_tele_sys_cd);
{ TABLE "oracle".mil_pers_asg row size = 53 number of columns = 10 index size = 19 }
create table "oracle".mil_pers_asg
(
  ind_ssn.....char(9).....not null,
  mil_pot_gain_upc.....char(5),
  mil_ult_gain_upc .....char(5),
  mil_prev_rpt_dt.....char(8),
  mil_prev_dprt_dt .....char(8),
  mil_curr_tdy_qy.....integer,
  mil_curr_lv_qy .....integer,
  mil_mv_desig_cd.....char(2),
  mil_prev_tdy_qy.....integer,
  mil_prev_lv_qy .....integer
);
revoke all on "oracle".mil_pers_asg from "public";

```

```
create unique index "oracle".mil_pers_asg_idx on "oracle".mil_pers_asg (ind_ssn);
{ TABLE "oracle".individual row size = 115 number of columns = 26 index size = 19 }
create table "oracle".individual
```

```
(  
    ind_ssn.....char(9).....not null,  
    indiv_name.....char(27),  
    un_svc_dsg_cd .....char(1),  
    un_porg_dsg_id .....char(3),  
    un_descr_dsg_id .....char(2),  
    org_id.....char(6),  
    birth_dt.....char(8),  
    ind_usctz_sta_cd.....char(1),  
    ind_hiv_tst_ymdt .....char(6),  
    ind_race_pop_cd.....char(1),  
    ind_sex_code.....char(1),  
    civ_educ_lv_cd.....char(1),  
    ind_martl_st_cd .....char(1),  
    pri_lang_cd.....char(2),  
    sec_lang_cd.....char(2),  
    ind_vssn_cd.....char(1),  
    pers_si_comp_cd.....char(1),  
    pers_si_comp_dt .....char(8),  
    pers_si_init_cd.....char(1),  
    pers_si_init_dt .....char(8),  
    ind_birth_sta_cd.....char(2),  
    ind_brth_city_nm.....char(17),  
    ind_brth_ctry_cd.....char(2),  
    ind_ctzp_ctry_cd.....char(2),  
    ind_ctzsp_org_cd.....char(1),  
    ind_ethnic_cd.....char(1)  
);
```

revoke all on "oracle".individual from "public";

```
create unique index "oracle".individual_idx on "oracle".individual (ind_ssn);
{ TABLE "oracle".individual row size = 115 number of columns = 26 index size = 19 }
create table "oracle".individual
```

```
(  
    un_svc_dsg_cd .....char(1).....not null,  
    un_porg_dsg_id .....char(3).....not null,  
    un_descr_dsg_id .....char(2).....not null,  
    org_tel_type_cd.....char(1).....not null,  
    inf_telnr_pur_cd .....char(1).....not null,  
    inf_tele_sys_cd.....char(1).....not null,  
    org_id.....char(6),  
    inf_telephone_nr.....char(28)  
);
```

revoke all on "oracle".individual from "public";

```
create unique index "oracle".unit_phone_idx on "oracle".unit_phone (un_svc_dsg_cd, un_porg_dsg_id,
un_descr_dsg_id, org_tel_type_cd, inf_telnr_pur_cd, inf_tele_sys_cd, org_id);
{ TABLE "oracle".unit_phone row size = 43 number of columns = 8 index size = 28 }
```

```
create table "oracle".unit_phone
```

```
(  
    un_svc_dsg_cd .....char(1).....not null,  
    un_porg_dsg_id .....char(3).....not null,  
    un_descr_dsg_id .....char(2).....not null,  
    org_tel_type_cd.....char(1).....not null,  
    inf_telnr_pur_cd .....char(1).....not null,  
    inf_tele_sys_cd.....char(1).....not null,  
    org_id.....char(6),  
    inf_telephone_nr.....char(28)  
);
```

```

org_wc_ola_cd.....char(1),
org_wc_op_pr_nr.....char(3),
org_wc_sch_cd.....char(1),
inf_telephone_nr.....char(28)
);
revoke all on "oracle".workcntr_gen_inf from "public";
create unique index "oracle".workcntr_gen_idx on "oracle".workcntr_gen_inf (org_wc_nm);
{ TABLE "oracle".workcntr_appt row size = 41 number of columns = 6 index size = 54 }
create table "oracle".workcntr_appt
(
org_wc_nm.....char(20).....not null,
org_wc_appt_dt.....char(8).....not null,
org_wc_appt_tm.....char(4).....not null,
org_wc_apt_cp_nr .....integer,
org_wc_apt_us_nr .....integer,
org_wc_apt_orig_cd .....char(1)
);
revoke all on "oracle".workcntr_appt from "public";
create unique index "oracle".workcntr_apt_idx on "oracle".workcntr_appt (org_wc_nm, org_wc_appt_dt,
org_wc_appt_tm);
{ TABLE "oracle".workcntr_doc row size = 61 number of columns = 3 index size = 36 }
create table "oracle".workcntr_doc
(
org_wc_nm.....char(20).....not null,
org_wc_doc_nm.....char(40),
org_wc_doc_pr_cd .....char(1)
);
revoke all on "oracle".workcntr_doc from "public";
create index "oracle".workcntr_doc_idx on "oracle".workcntr_doc (org_wc_nm);
{ TABLE "oracle".workcntr_quest row size = 124 number of columns = 4 index size = 36}
create table "oracle".workcntr_quest
(
org_wc_nm.....char(20).....not null,
org_wc_disp_cd .....char(3),
org_wc_quest_tx.....char(100),
org_wc_qu_ty_cd .....char(1)
);
revoke all on "oracle".workcntr_quest from "public";
create index "oracle".workcntr_qst_idx on "oracle".workcntr_quest (org_wc_nm);
{ TABLE "oracle".workcntr_skel row size = 35 number of columns = 5 index size = 48 }
create table "oracle".workcntr_skel
(
org_wc_nm.....char(20).....not null,
weekday_cd .....integer.....not null,
org_wc_apt_st_tm.....char(4).....not null,
org_wc_apt_cp_nr .....integer,
weekday_nm.....char(3)
);
revoke all on "oracle".workcntr_skel from "public";
create unique index "oracle".workcntr_skl_idx on "oracle".workcntr_skel (org_wc_nm, weekday_cd,
org_wc_apt_st_tm);
{ TABLE "oracle".ind_appt row size = 231 number of columns = 9 index size = 51 }
create table "oracle".ind_appt
(
ind_ssn.....char(9).....not null,
org_wc_nm.....char(20).....not null,
org_wc_appt_dt.....char(8),
org_wc_appt_tm.....char(4),
auth_ind_nm.....char(27),
org_wc_cmp_dt .....char(8),
org_wc_cmp_tm.....char(4),

```

```

org_wc_in_out_cd .....char(1),
org_wc_commnt_tx.....char(150)
);
revoke all on "oracle".ind_appt from "public";
create unique index "oracle".ind_appt_idx on "oracle".ind_appt (ind_ssn, org_wc_nm, org_wc_in_out_cd);
{ TABLE "oracle".mil_sfpa row size = 27 number of columns = 5 index size = 19 }
create table "oracle".mil_sfpa
(
  ind_ssn.....char(9).....not null,
  mil_sfpa_exp_dt.....char(8),
  mil_sfpa_rsn_cd.....char(1),
  mil_sfpa_rpty_cd.....char(1),
  mil_sfpa_rept_dt.....char(8)
);
revoke all on "oracle".mil_sfpa from "public";
create index "oracle".mil_sfpa_idx on "oracle".mil_sfpa (ind_ssn);
{ TABLE "oracle".mil_educ_class row size = 40 number of columns = 5 index size = 48 }
create table "oracle".mil_educ_class
(
  mil_ed_cls_end_dt .....integer,
  mil_ed_cls_str_dt .....integer,
  mil_ed_crs_nr.....char(25).....not null,
  mil_ed_crs_wk_qy.....integer,
  mil_ed_class_no .....char(3).....not null
);
revoke all on "oracle".mil_educ_class from "public";
create unique index "oracle".mil_ed_class_idx on "oracle".mil_educ_class (mil_ed_crs_nr, mil_ed_class_no);
{ TABLE "oracle".ind_pers_test row size = 22 number of columns = 4 index size = 22 }
create table "oracle".ind_pers_test
(
  ind_ssn.....char(9).....not null,
  pers_test_typ_cd.....char(2).....not null,
  apt_yr_mo_dt.....char(8),
  apt_score_qy.....char(3)
);
revoke all on "oracle".ind_pers_test from "public";
create unique index "oracle".ind_pers_test_idx on "oracle".ind_pers_test (ind_ssn,pers_test_typ_cd);
{ TABLE "oracle".org_strength row size = 15 number of columns = 6 index size = 16 }
create table "oracle".org_strength
(
  mil_pers_clas_cd .....char(1).....not null,
  un_descr_dsg_id .....char(2).....not null,
  un_porg_dsg_id .....char(3).....not null,
  un_svc_dsg_cd .....char(1).....not null,
  acct_strgh_qy .....integer,
  atchd_strgh_qy.....integer
);
revoke all on "oracle".org_strength from "public";
create unique index "oracle".org_strength_idx on "oracle".org_strength (mil_pers_clas_cd, un_descr_dsg_id, un_porg_dsg_id, un_svc_dsg_cd);
{ TABLE "oracle".oversea_asg row size = 17 number of columns = 3 index size = 25 }
create table "oracle".oversea_asg
(
  ind_ssn.....char(9).....not null,
  os_asgt_compl_dt.....integer,
  os_asgt_start_dt.....integer
);
revoke all on "oracle".oversea_asg from "public";
create unique index "oracle".oversea_asg_idx on "oracle".oversea_asg (ind_ssn,os_asgt_start_dt);
{ TABLE "oracle".sgli row size = 20 number of columns = 4 index size = 21 }
create table "oracle".sgli

```

```

(
ind_ssn.....char(9).....not null,
sgli_entlmnt_cd.....char(1).....not null,
sgli_ben_ent_cd .....char(2),
sgli_ent_eff_dt.....char(8)
);
revoke all on "oracle".sgli from "public";
create unique index "oracle".sgli_idx on "oracle".sgli (ind_ssn,sgli_entlmnt_cd);
{ TABLE "oracle".sponsored_dep row size = 23 number of columns = 4 index size = 33 }
create table "oracle".sponsored_dep
(
ind_ssn.....char(9).....not null,
fm_ssn .....char(9).....not null,
depn_tvl_appr_cd .....char(1),
dep_os_arr_dt.....integer
);
revoke all on "oracle".sponsored_dep from "public";
create unique index "oracle".sponsored_dep_idx on "oracle".sponsored_dep (ind_ssn,fm_ssn);
{ TABLE "oracle".soldier_lost_time row size = 17 number of columns = 3 index size = 25 }
create table "oracle".soldier_lost_time
(
ind_ssn.....char(9).....not null,
mil_lost_end_dt .....integer,
mil_lost_st_dt.....integer
);
revoke all on "oracle".soldier_lost_time from "public";
create unique index "oracle".sol_lost_tm_idx on "oracle".soldier_lost_time (ind_ssn,mil_lost_st_dt);
{ TABLE "oracle".ind_address row size = 132 number of columns = 11 index size = 40 }
create table "oracle".ind_address
(
ind_ssn.....char(9).....not null,
ind_addr_type_cd .....char(1).....not null,
ind_addr_city_nm.....char(17),
ind_addr_ctry_cd .....char(2),
ind_addr_forn_nr.....char(10),
ind_addr_gtwy_ab .....char(3),
ind_addr_state_ab.....char(2),
ind_addr_zip_cd .....char(9),
ind_addr_loc_tx.....char(60),
ind_addr_gtwy_cd .....char(2),
ind_addr_forn_st.....char(17)
);
revoke all on "oracle".ind_address from "public";
create index "oracle".ind_addr_idx1 on "oracle".ind_address (ind_ssn);
create index "oracle".ind_addr_idx2 on "oracle".ind_address (ind_ssn,ind_addr_type_cd);
{ TABLE "oracle".ind_assoc_addr row size = 133 number of columns = 11 index size = 22 }
create table "oracle".ind_assoc_addr
(
ind_ssn.....char(9).....not null,
rel_id .....char(2).....not null,
ind_addr_city_nm.....char(17),
ind_addr_ctry_cd .....char(2),
ind_addr_forn_nr.....char(10),
ind_addr_gtwy_ab .....char(3),
ind_addr_state_ab.....char(2),
ind_addr_zip_cd .....char(9),
ind_addr_loc_tx.....char(60),
ind_addr_gtwy_cd .....char(2),
ind_addr_forn_st.....char(17)
);
revoke all on "oracle".ind_assoc_addr from "public";

```

```

create unique index "oracle".ind_assc_adr_idx on "oracle".ind_assoc_addr (ind_ssn,rel_id);
{ TABLE "oracle".unit_awards row size = 21 number of columns = 4 index size = 19 }
create table "oracle".unit_awards
(
  award_eff_dt.....char(8),
  ind_ssn.....char(9).....not null,
  unit_award_cd.....char(2),
  ind_sngl_awd_qy .....char(2)
);
revoke all on "oracle".unit_awards from "public";
create index "oracle".unit_award_idx on "oracle".unit_awards (ind_ssn);
{ TABLE "oracle".mil_pers row size = 165 number of columns = 33 index size = 19 }
create table "oracle".mil_pers
(
  ind_ssn.....char(9).....not null,
  ar_ml_mk_eff_dt.....char(8),
  army_mil_rank_ab.....char(3),
  army_mil_rank_cd.....char(2),
  army_mil_rank_dt .....char(8),
  asg_arr_dt .....char(8),
  asg_deros_dt.....char(8),
  asg_dprt_dt .....char(8),
  asg_dlos_dt .....char(8),
  asg_proj_arr_dt.....char(8),
  asg_dros_dt.....char(8),
  basd.....char(8),
  bped .....char(8),
  mil_ad_ent_cy_nm.....char(17),
  mil_ad_ent_st_cd .....,char(2),
  mil_dy_stat_ab.....char(3),
  mil_ead_dt.....char(8),
  mil_educ_lvl_cd.....char(1),
  mil_pers_clas_cd .....char(1),
  mil_phypr_dylm_cd.....char(1),
  mil_sqt_score_qy .....char(3),
  mil_svc_comp_cd.....char(1),
  mil_pulhes .....char(6),
  prom_indic_cd.....char(1),
  mil_rec_stat_cd.....char(1),
  mil_attached_cd .....char(1),
  mil_asg_posn_nr.....char(4),
  mil_delay_sep_cd.....char(1),
  mil_svc_agree_cd.....char(1),
  mil_photo_sus_dt.....char(6),
  mil_last_pcs_dt.....char(6),
  afrm_award_el_dt .....char(6),
  ind_veap_stat_cd.....char(1)
);
revoke all on "oracle".mil_pers from "public";
create unique index "oracle".mil_pers_idx on "oracle".mil_pers (ind_ssn);
{ TABLE "oracle".ind_mil_educ row size = 84 number of columns = 6 index size = 61 }
create table "oracle".ind_mil_educ
(
  mil_ed_crs_nr.....char(25).....not null,
  mil_ed_crs_wk_qy.....char(2),
  mil_ed_crs_nme .....char(37),
  ind_ssn.....char(9).....not null,
  mil_ed_class_no .....char(3),
  in_mil_ed_cs_cp_dt .....char(8)
);
revoke all on "oracle".ind_mil_educ from "public";

```

```

create unique index "oracle".mil_ed_idx on "oracle".ind_mil_educ (ind_ssn,mil_ed_crs_nr,mil_ed_class_no);
{ TABLE "oracle".enlisted row size = 26 number of columns = 5 index size = 19 }
create table "oracle".enlisted
(
  ind_ssn.....char(9).....not null,
  mil_ets_dt.....char(8),
  sol_reent_el_cd.....char(2),
);
revoke all on "oracle".enlisted from "public";
create unique index "oracle".enlisted_idx on "oracle".enlisted (ind_ssn);
{ TABLE "oracle".mil_separation row size = 30 number of columns = 7 index size = 19 }
create table "oracle".mil_separation
(
  ind_ssn.....char(9).....not null,
  mil_sep_typ_cd.....char(1).....not null,
  mil_sep_dt.....char(8),
  mil_sep_de_rsn_cd .....char(1),
  mil_sep_rsn_cd.....char(2).....not null,
  mil_char_svc_cd.....char(1),
  ret_dt.....char(8)
);
revoke all on "oracle".mil_separation from "public";
create unique index "oracle".mil_separation_idx on "oracle".mil_separation (ind_ssn);
{ TABLE "oracle".id_bad_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".id_bad_awards
(
  award_eff_dt.....integer,
  id_bad_awd_cd.....char(2),
  ind_sngl_awd_qy.....char(2),
  ind_ssn.....char(9).....not null
);
revoke all on "oracle".id_bad_awards from "public";
create index "oracle".bad_awd_idx on "oracle".id_bad_awards (ind_ssn);
{ TABLE "oracle".mil_decn_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".mil_decn_awards
(
  award_eff_dt.....integer,
  ind_ssn.....char(9).....not null,
  mil_decn_awd_cd.....char(2),
  ind_sngl_awd_qy.....char(2)
);
revoke all on "oracle".mil_decn_awards from "public";
create index "oracle".mil_decn_awd_idx on "oracle".mil_decn_awards (ind_ssn);
{ TABLE "oracle".mil_forn_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".mil_forn_awards
(
  award_eff_dt.....integer,
  ind_ssn.....char(9).....not null,
  mil_foreign_awd_cd .....char(2),
  ind_sngl_awd_qy.....char(2)
);
revoke all on "oracle".mil_forn_awards from "public";
create index "oracle".mil_forn_awd_idx on "oracle".mil_forn_awards (ind_ssn);
{ TABLE "oracle".mil_svc_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".mil_svc_awards
(
  award_eff_dt.....integer,
  ind_ssn.....char(9).....not null,
  mil_svc_awd_cd .....char(2),
  ind_sngl_awd_qy.....char(2)
);

```

```

revoke all on "oracle".mil_svc_awards from "public";
create index "oracle".mil_svc_awds_idx on "oracle".mil_svc_awards (ind_ssn);
{ TABLE "oracle".nonml_dec_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".nonml_dec_awards
(
  award_eff_dt.....integer,
  ind_ssn.....char(9).....not null,
  nonml_dec_awd_cd .....char(2),
  ind_sngl_awd_qy.....char(2)
);
revoke all on "oracle".nonml_dec_awards from "public";
create index "oracle".dec_awards_idx on "oracle".nonml_dec_awards (ind_ssn);
{ TABLE "oracle".sp_skl_bg_awards row size = 17 number of columns = 4 index size = 19 }
create table "oracle".sp_skl_bg_awards
(
  award_eff_dt.....integer,
  ind_ssn.....char(9).....not null,
  sp_skl_bg_awd_cd .....char(2),
  ind_sngl_awd_qy.....char(2)
);
revoke all on "oracle".sp_skl_bg_awards from "public";
create index "oracle".skl_bg_awd_idx on "oracle".sp_skl_bg_awards (ind_ssn);
{ TABLE "oracle".update_hold row size = 11 number of columns = 2 index size = 19 }
create table "oracle".update_hold
(
  ind_ssn.....char(9).....not null,
  app_flag.....char(2).....not null
);
revoke all on "oracle".update_hold from "public";
create index "oracle".ix176_1 on "oracle".update_hold (ind_ssn);
{ TABLE "oracle".ind_rel_lookup row size = 21 number of columns = 4 index size = 10 }
create unique index "oracle".ind_rel_lookup_idx on "oracle".ind_rel_lookup (ind_benif_cd, ind_fmlly_mbr_cd);
{ TABLE "oracle".max_rel_id row size = 11 number of columns = 2 index size = 19 }
create unique index "oracle".max_rel_id_idx on "oracle".max_rel_id (ind_ssn);

grant all on "oracle".civilian to "public" as "oracle";
grant all on "oracle".cmsnd_off to "public" as "oracle";
grant all on "oracle".enl_occ_spec to "public" as "oracle";
grant all on "oracle".enl_mos_master to "public" as "oracle";
grant all on "oracle".enl_mos_lookup to "public" as "oracle";
grant all on "oracle".ind_assoc to "public" as "oracle";
grant all on "oracle".pers_test to "public" as "oracle";
grant all on "oracle".warr_off to "public" as "oracle";
grant all on "oracle".wo_occ_spec to "public" as "oracle";
grant all on "oracle".wo_mos_master to "public" as "oracle";
grant all on "oracle".wo_mos_lookup to "public" as "oracle";
grant all on "oracle".unit to "public" as "oracle";
grant all on "oracle".unit_auth_str to "public" as "oracle";
grant all on "oracle".cmd_cd_lookup to "public" as "oracle";
grant all on "oracle".cmsnd_occ_spec to "public" as "oracle";
grant all on "oracle".co_aoc_master to "public" as "oracle";
grant all on "oracle".co_aoc_lookup to "public" as "oracle";
grant all on "oracle".ind_phone to "public" as "oracle";
grant all on "oracle".mil_pers_asg to "public" as "oracle";
grant all on "oracle".individual to "public" as "oracle";
grant all on "oracle".unit_phone to "public" as "oracle";
grant all on "oracle".workcntr_gen_inf to "public" as "oracle";
grant all on "oracle".workcntr_appt to "public" as "oracle";
grant all on "oracle".workcntr_doc to "public" as "oracle";
grant all on "oracle".workcntr_quest to "public" as "oracle";
grant all on "oracle".workcntr_skel to "public" as "oracle";

```

```
grant all on "oracle".ind_appt to "public" as "oracle";
grant all on "oracle".mil_sfpa to "public" as "oracle";
grant all on "oracle".mil_educ_class to "public" as "oracle";
grant all on "oracle".ind_pers_test to "public" as "oracle";
grant all on "oracle".org_strength to "public" as "oracle";
grant all on "oracle".oversea_asg to "public" as "oracle";
grant all on "oracle".sgli to "public" as "oracle";
grant all on "oracle".sponsored_dep to "public" as "oracle";
grant all on "oracle".soldier_lost_time to "public" as "oracle";
grant all on "oracle".ind_address to "public" as "oracle";
grant all on "oracle".ind_assoc_addr to "public" as "oracle";
grant all on "oracle".unit_awards to "public" as "oracle";
grant all on "oracle".mil_pers to "public" as "oracle";
grant all on "oracle".ind_mil_educ to "public" as "oracle";
grant all on "oracle".enlisted to "public" as "oracle";
grant all on "oracle".mil_separation to "public" as "oracle";
grant all on "oracle".id_bad_awards to "public" as "oracle";
grant all on "oracle".mil_decn_awards to "public" as "oracle";
grant all on "oracle".mil_forn_awards to "public" as "oracle";
grant all on "oracle".mil_svc_awards to "public" as "oracle";
grant all on "oracle".nomml_dec_awards to "public" as "oracle";
grant all on "oracle".sp_skl_bg_awards to "public" as "oracle";
grant all on "oracle".update_hold to "public" as "oracle";
grant all on "oracle".ind_rel_lookup to "public" as "oracle";
grant all on "oracle".max_rel_id to "public" as "oracle";
```

11 DATA DICTIONARY

Explanation of Report Format

NOTE: All information in this report, except RANGE, REQ and DESCRIPTION, is derived from the database schema.

MNEMONIC: The first line in each grouping consists of the database name followed by the table name. Subsequent lines consist of data elements listed within that table in the order they occur in the schema.

TYP:	Type of data element:
B	Bit String or Binary Data
C	Character
D	Decimal
F	Floating Point
I	Integer
S	Small Integer
LEN:	Length of element (bytes)
NUL:	NULLs allowed:
-	field may have a NULL value
N	field must have a non NULL value
REQ:	Indicates whether the value in a field is required in order to add the record:
-	value is not required
C	value is required according to conditions stated in DESCRIPTION
R	value is required
KEY:	Type of key:
D	element is indexed with duplicates allowed
U	record is uniquely identified by a key (Components of the key are identified below by number).
LVL:	This identifies the order of the components in the index: Range is 1 (highest level order) thru 16 (lowest level order)
RANGE:	Range of allowed values of data element. This information should be derived from the Functional Description.

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
civilian								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
civ_pay_plan_cd	C	2					Alphanumeric	Civilian pay plan code
civ_py_gr_lvl_nr	C	2					Alphanumeric	Civilian pay grade level number
civ_rt_sc_dt	C	8					YYYYMMDD	Civilian return service date
civ_occ_ser_nr	C	5					Alphanumeric	Civilian occupation service number
civ_empl_step_nr	C	2					Alphanumeric	Civilian employee step number
civ_rt_prg_cd	C	1					Alphanumeric	Civilian return program code
civ_mil_rt_cd	C	1					Alphanumeric	Civilian military return code
cmd_cd_lookup								
stru_command_cd	C	2	N				Alphanumeric	Structured command code
command_name	C	60					Alphanumeric	Command name
cmsnd_occ_spec								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
occ_spc_desig_cd	C	1	N				Alphanumeric	Occupation specialty designator code
cmsnd_off_aoc_id	C	3					Alphanumeric	Commissioned officer Area of Concentration (AOC) code
com_off_skill_cd	C	2					Alphanumeric	Commissioned officer skill code
cmsnd_off								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
co_cr_mgmt_cntl_cd	C	2					Alphanumeric	Commissioned officer carrier management control code
off_esd_dt	C	8					YYYYMMDD	Officer ESA date
co_basic_br_cd	C	2	N				Alphanumeric	Commissioned officer basic branch code
co_aoc_lookup								
cmsnd_off_aoc_id	C	3	N				Alphanumeric	Commissioned officer AOC id
com_off_skill_cd	C	2	N				Alphanumeric	Commissioned officer skill code
co_aoc_master								
cmsnd_off_aoc_id	C	3	N				Alphanumeric	Commissioned officer AOC id
mil_auth_sex_cd	C	1				M or F		Military authorized sex code
enl_mos_lookup								
enl_mos_id	C	3	N				Alphanumeric	Enlisted military occupational specialty (MOS) id
enl_skl_lvl_nr	C	1	N				Alphanumeric	Enlisted skill level number
enl_asi_cd	C	2	N				Alphanumeric	Enlisted Additional Skill Indicator (ASI) code
enl_mos_master								
enl_mos_id	C	3	N				Alphanumeric	Enlisted MOS id
enl_skl_lvl_nr	C	1	N				Alphanumeric	Enlisted skill level number
enl_sqi_cd	C	1	N				Alphanumeric	Enlisted skill qualification identifier (SQI) code
low_auth_gr	C	1					Alphanumeric	Low authorized grade

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
high_auth_gr	C	1					Alphanumeric	High authorized grade
mil_auth_sex_cd	C	1					M or F	Military authorized gender code
enl_occ_spec								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
occ_spc_desig_cd	C	1	N				Alphanumeric	Occupation specialty designator code
enl_mos_id	C	3					Alphanumeric	Enlisted MOS id
enl_skl_lvl_nr	C	1					Alphanumeric	Enlisted Skill Level Number
enl_sqi_cd	C	1					Alphanumeric	Enlisted SQI code
enl_asl_cd	C	2					Alphanumeric	Enlisted ASI code
enlisted								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
mil_ets_dt	C	8					YYYYMMDD	Military Expiration Term of Service (ETS) date
sol_reent_el_cd	C	2					Alphanumeric	Soldier reenlistment eligibility code
id_bad_awards								
award_eff_dt	I	8					Numeric	Award effective date
id_bad_awd_cd	C	2					Alphanumeric	Identification Badge award code
ind_sngl_awd_qy	C	2					1-99 or blank	Number of times the same award was given to an individual
ind_ssn	C	9					Alphanumeric	Individual SSN
ind_address								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
ind_addr_type_cd	C	1	N				Alphanumeric	Individual address type code
ind_addr_city_nm	C	17					Alphanumeric	Individual address city name
ind_addr_ctry_cd	C	2					Alphanumeric	Individual address country code
ind_addr_forn_nr	C	10					Alphanumeric	Individual address foreign number
ind_addr_gtwy_ab	C	3					Alphanumeric	Individual address gateway abbreviation
ind_addr_state_ab	C	2					Alphanumeric	Individual address state abbreviation
ind_addr_zip_cd	C	9					Alphanumeric	Individual address zip Code
ind_addr_loc_tx	C	60					Free form	Individual address location text
ind_addr_gtwy_cd	C	2					Alphanumeric	Individual address gateway code
ind_addr_forn_st	C	17					Alphanumeric	Individual address foreign state
ind_appt								
ind_ssn	C	9	N				Numric	Individual SSN
org_wc_nm	C	20	N				Alphanumeric	Organization work center name
org_wc_appt_dt	C	8					YYYYMMDD	Organization work center appointment date
org_wc_appt_tm	C	4					HHMM	Organization work center appointment time
auth_ind_nm	C	27					Alphanumeric	Authorized individual name
org_wc_cmp_dt	C	8					YYYYMMDD	Organization work center completion date
org_wc_cmp_tm	C	4					HHMM	Organization work center completion time
org_wc_in_out_cd	C	1					Alphanumeric	Org. work center In-processing/Out-Processing code

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
org_wc_commnt_tx	C	150					Free form	Organization work center comments text
ind_assoc								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
rel_id	C	2	N				Alphanumeric	Sequential relation ID
ind_fmlly_mbr_cd	C	2					Alphanumeric	Individual family member code
indiv_name	C	27					Alphanumeric	Individual family member name
birth_dt	C	8					YYYYMMDD	Birth date
ind_fmlly_ssn	C	9					Alphanumeric	Individual family member SSN
ind_sex_code	C	1					M or F	Individual family member gender
ind_unifd_svc_cd	C	1					Alphanumeric	Individual unified service code
depn_indic_cd	C	1					Alphanumeric	Dependent indicator code
separate_addr_cd	C	1					Alphanumeric	Separate address code
ind_benif_cd	C	1					Alphanumeric	Individual beneficiary code
ind_assoc_src_cd	C	1					Alphanumeric	Individual associate service center code
app_flag	C	1					T = transproc	Application flag
ind_assoc_addr								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
rel_id	C	2	N				Alphanumeric	Sequential relation ID
ind_addr_city_nm	C	17					Alphanumeric	Individual address city name
ind_addr_ctry_cd	C	2					Alphanumeric	Individual address country code
ind_addr_forn_nr	C	10					Alphanumeric	Individual address foreign number
ind_addr_gtwy_ab	C	3					Alphanumeric	Individual address gateway abbreviation
ind_addr_state_ab	C	2					Alphanumeric	Individual address state abbreviation
ind_addr_zip_cd	C	9					Alphanumeric	Individual address zip code
ind_addr_loc_tx	C	60					Free form	Individual address location text
ind_addr_gtwy_cd	C	2					Alphanumeric	Individual address gateway code
ind_addr_forn_st	C	17					Alphanumeric	Individual address foreign state
ind_mil_educ								
mil_ed_crs_nr	C	25					Alphanumeric	Military education course number
mil_ed_crs_wk_qy	C	2					Alphanumeric	Military education course week quantity (completed)
mil_ed_crs_nme	C	37					Alphanumeric	Military education course name
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_ed_class_no	C	3					Alphanumeric	Military education class number
in_mil_ed_cs_cp_dt	C	8					YYYYMMDD	Individual military education course completed date
ind_pers_test								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
pers_test_typ_cd	C	2	N				Alphanumeric	Personnel test type code
per_tst_apt_ar_cd	C	2					Alphanumeric	Personnel test appointment arrival code
apt_score_qy	C	3	N				Alphanumeric	Aptitude score quantity

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
apt_yr_mo_dt	C	8	N				YYYYMMDD	Appointment year, month and date
ind_phone								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
ind_telnr_type_cd	C	1	N				Alphanumeric	Individual phone number type code
inf_telnr_pur_cd	C	1	N				Alphanumeric	Information phone number purpose code
inf_tele_sys_cd	C	1	N				Alphanumeric	Information telephone system code
inf_telephone_nr	C	28					Alphanumeric	Information phone number
individual								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
indiv_name	C	27					Alphanumeric	Individual name
un_svc_dsg_cd	C	1					Alphanumeric	Unit service designator code
un_porg_dsg_id	C	3					Alphanumeric	Unit parent organization designator id
un_descr_dsg_id	C	2					Alphanumeric	Unit descriptive designator id
org_id	C	6					Alphanumeric	Organization id
birth_dt	C	8					YYYYMMDD	Birth date
ind_usctz_sta_cd	C	1					Alphanumeric	Individual US citizenship status code
ind_hiv_tst_ymdt	C	6					YYMMDD	Individual HIV test year-month-date
ind_race_pop_cd	C	1					Alphanumeric	Individual race population code
ind_sex_code	C	1					M or F	Individual gender code
civ_educ_lv_cd	C	1					Alphanumeric	Civilian education level code
ind_martl_st_cd	C	1					Alphanumeric	Individual marital status code
pri_lang_cd	C	2					Alphanumeric	Primary language code
sec_lang_cd	C	2					Alphanumeric	Secondary language code
ind_vssn_cd	C	1					Alphanumeric	Individual SSN verification code
pers_si_comp_cd	C	1					Alphanumeric	Personal security investigation completion code
pers_si_comp_dt	C	8					YYYYMMDD	Personal security investigation completion date
pers_si_init_cd	C	1					Alphanumeric	Personal security investigation initiated code
pers_si_init_dt	C	8					YYYYMMDD	Personal security investigation initiated date
ind_birth_sta_cd	C	2	N				Alphanumeric	Individual birth state code
ind_birthday_nm	C	17					Alphanumeric	Individual birth city name
ind_birthday_ctry_cd	C	2					Alphanumeric	Individual birth country code
ind_ctzp_ctry_cd	C	2					Alphanumeric	Individual citizenship country code
ind_ctzsp_org_cd	C	1					Alphanumeric	Individual citizenship organization code
ind_ethnic_cd	C	1					Alphanumeric	Individual ethnic code
list								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
datestamp	C	8					YYYYMMDD	Date stamp
mil_decn_awards								
award_eff_dt	I	8					Numeric	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
mil_decn_awd_cd	C	2					Alphanumeric	Military decoration award code
ind_sngl_awd_qy	C	2					1-99	Number of times the same award was given to an individual.
mil_educ_class								
mil_ed_cls_end_dt	C	8					YYYYMMDD	Military education class ending date
mil_ed_cls_str_dt	C	8					YYYYMMDD	Military education class start date
mil_ed_crs_nr	C	25					Alphanumeric	Military education course number
mil_ed_crs_wk_qy	I	4					Numeric	Military education course week quantity
mil_ed_class_no	C	3					Numeric	Military education class number
mil_forn_awards								
award_eff_dt	I	8					Numeric	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_foreign_awd_cd	C	2					Alphanumeric	Military foreign award code
ind_sngl_awd_qy	C	2					See Notes.	Number of times the same Republic of Vietnam Unit of Gallantry award was given to an individual.
Notes: BS = Bronze Star, SS = Silver Star, GS = Gold Star, P = Palm								
mil_pers								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
ar_ml_rnk_eff_dt	C	8					YYYYMMDD	Army military rank effective date
army_mil_rank_ab	C	3					Alphanumeric	Army military rank abbreviation
army_mil_rank_cd	C	2					Alphanumeric	Army military rank code
army_mil_rank_dt	C	8					YYYYMMDD	Army military rank date
asg_arr_dt	C	8					YYYYMMDD	Assignment arrival date
asg_deros_dt	C	8					YYYYMMDD	Overseas assignment departure date
asg_dpdt_dt	C	8					YYYYMMDD	Assignment departure date
asg_dllos_dt	C	8					YYYYMMDD	Assignment date of loss
asg_proj_arr_dt	C	8					YYYYMMDD	Assignment project arrival date
asg_dros_dt	C	8					YYYYMMDD	Assignment departure overseas date
basd	C	8					YYYYMMDD	Military basic active date
bped	C	8					YYYYMMDD	Basic pay entry date
mil_ad_ent_cy_nm	C	17					Alphanumeric	Military active duty entry city name
mil_ad_ent_st_cd	C	2					Alphanumeric	Military active duty entry state code
mil_dy_stat_ab	C	3					Alphanumeric	Military duty state abbreviation
mil_ead_dt	C	8					YYYYMMDD	Military entry active duty date
mil_educ_lvl_cd	C	1					Alphanumeric	Military education level code
mil_pers_clas_cd	C	1					Alphanumeric	Military personnel class code
mil_phypr_dylm_cd	C	1					Alphanumeric	Military physical profile duty limitation code
mil_sqt_score_qy	C	3					Alphanumeric	Military skill qualification test score quantity
mil_svc_comp_cd	C	1					Alphanumeric	Military service component code

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
mil_pulhes	C	6					Alphanumeric	Military PULHES code
prom_indic_cd	C	1					Alphanumeric	Promotion indicator code
mil_rec_stat_cd	C	1					Alphanumeric	Military recruitment status code
mil_attached_cd	C	1					Alphanumeric	Military attached indicator code
mil_asg_posn_nr	C	4					Alphanumeric	Military assigned position indicator
mil_delay_sep_cd	C	1					Alphanumeric	Military delay separator code
mil_svc_agree_cd	C	1					Alphanumeric	Military service agreement code
mil_photo_sus_dt	C	6					YYMMDD	Military photo suspense date
mil_last_pcs_dt	C	6					YYMMDD	Military last permanent change of station date
afrm_award_el_dt	C	6					YYMMDD	Date eligible for Armed Forces Reserve Medal award
ind_veap_stat_cd	C	1	N				Y or N	Veterans Educational Assistance flag status code
mil_pers_asg								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
mil_pot_gain_upc	C	5					Alphanumeric	Military potential gaining UPC
mil_ult_gain_upc	C	5					Alphanumeric	Military ultimate gaining UPC
mil_prev_rpt_dt	C	8					YYYYMMDD	Military previous report date
mil_prev_dprt_dt	C	8					YYYYMMDD	Military previous departure date
mil_curr_tdy_qy	I	4					Numeric	Military current days of TDY quantity
mil_curr_lv_qy	I	4					Numeric	Military current days of leave quantity
mil_mv_desig_cd	C	2					Alphanumeric	Military movement designator code
mil_prev_tdy_qy	I	4					Numeric	Military previous days of TDY quantity
mil_prev_lv_qy	I	4					Numeric	Military previous days of leave quantity
mil_separation								
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_sep_typ_cd	C	1				See notes.		Military separation type code
Notes: L,M = Type/Reason of separation ; P,R,S = Type/Reason of Retirement								
mil_sep_dt	C	8					YYYYMMDD	Military separation date
mil_sep_de_rsn_cd	C	1					Alphanumeric	Military separation depart reason code
mil_sep_rsn_cd	C	2					Alphanumeric	Military separation reason code
mil_char_scv_cd	C	1				See Notes.		Military character service code
Notes: A = Honorable; B = Under Honorable Conditions; C = Bad Conditions; D = Under other than Honorable Conditions; E = Dishonorable, F = Uncharacterized								
ret_dt	C	8					YYYYMMDD	Retirement Date
mil_sfpa								
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_sfpa_exp_dt	C	8					YYYYMMDD	Military SFPA expiration date
mil_sfpa_rsn_cd	C	1					Alphanumeric	Military SFPA reason code
mil_sfpa_rptn_cd	C	1					Alphanumeric	Military SFPA report code
mil_sfpa_rept_dt	C	8					YYYYMMDD	Military SFPA Report Date
mil_svc_awards								

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
award_eff_dt	I	8					Numeric	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_svc_awd_cd	C	2					Alphanumeric	Military service award code
ind_sngl_awd_qy	C	2					1-99, SR = noncoartic service ribbon, or blank	The number of times the same award was given to an individual
nonml_dec_award								
award_eff_dt	I	8					Numeric	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN
nonml_dec_awd_cd	C	2					Alphanumeric	Non-military decoration award code
ind_sngl_awd_qy	C	2					Blank	The number of times the same award was given to an individual
org_strength								
mil_pers_clas_cd	C	1					See notes.	Military Personnel Classification Code
Notes: E = Enlisted, W = Warrant Officer, O = Commissioned Officer								
un_descr_dsg_id	C	2					Alphanumeric	Unit Descriptive Designator Identifier
un_porg_dsg_id	C	3					Alphanumeric	Unit parent organization designator identifier
un_svc_dsg_cd	C	1					Alphanumeric	Unit Service Designator Code
acct_strgh_qy	I	4					Numeric	Account strength quantity
atchd_strgh_qy	I	4					Numeric	Attached strength quantity
oversea_asg								
ind_ssn	C	9					Alphanumeric	Individual SSN
os_asgt_compl_dt	I	4					Numeric	Overseas assignment completion date
os_asgt_start_dt	I	4					Numeric	Overseas assignment start date
pers_test								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
pers_test_typ_cd	C	2	N				Alphanumeric	Army personnel test type code
per_tst_apt_ar_cd	C	2	N				Alphanumeric	Army personnel test appointment arrival code
apt_score_qy	C	3					Alphanumeric	Aptitude score quantity
apt_yr_mo_dt	C	6					YYMMDD	Appointment year, month and date
sgli								
ind_ssn	C	9					Alphanumeric	Individual SSN
sgli_entlmnt_cd	C	1					Alphanumeric	Serviceman's Group Life Insurance (SGLI) entitlement Code
sgli_ben_ent_cd	C	2					0 thru 200	SGLI benefit entitlement code
sgli_ent_eff_dt	C	8					YYYYMMDD	SGLI entitlement effective date
soldier_lost_time								
ind_ssn	C	9					Alphanumeric	Individual SSN
mil_lost_end_dt	I	4					Numeric	Military lost time ending date
mil_lost_st_dt	I	4					Numeric	Military lost time start date
sponsored_dep								

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
ind_ssn	C	9					Alphanumeric	Individual SSN
fm_ssn	C	9					Alphanumeric	Family member SSN
depn_tvl_appr_cd	C	1					Alphanumeric	Dependent travel approval code
dep_os_arr_dt	I	4					Numeric	Department overseas arrival date
sp_skl_bg_awards								
award_eff_dt	I	8					Numeric	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN
sp_skl_bg_awd_cd	C	2					Alphanumeric	Military Special Skill Badge Award Code
ind_sngl_awd_qy	C	2					1-99, or blank	The number of times the same award was given to an individual
unit								
un_svc_dsg_cd	C	1	N				Alphanumeric	Unit service designator code
un_porg_dsg_id	C	3	N				Alphanumeric	Unit parent organization designator id
un_descr_dsg_id	C	2	N				Alphanumeric	Unit descriptive designator id
org_id	C	6					Alphanumeric	Organization id
un_office_sym	C	16					Alphanumeric	Unit office symbol
unit_name	C	30					Free form	Unit name
stru_command_cd	C	2					Alphanumeric	Structured command code
org_addr_city_nm	C	17					Alphanumeric	Organization address city name
org_addr_ctry_cd	C	2					Alphanumeric	Organization address country code
org_addr_forn_nr	C	9					Alphanumeric	Organization address foreign number
org_addr_gtwy_ab	C	3					Alphanumeric	Organization address gateway abbreviation
org_addr_state_ab	C	2					Alphanumeric	Original address state abbreviation
org_addr_zip_cd	C	9					Alphanumeric	Organization address zip code
org_addr_loc_tx	C	60					Free form	Organization address location text
org_addr_gtwy_cd	C	2					Alphanumeric	Organization address gateway code
unit_auth_str								
un_porg_dsg_id	C	3	N				Alphanumeric	Unit parent organization designator id
un_descr_dsg_id	C	2	N				Alphanumeric	Unit descriptive designator id
mil_asg_posn_nr	C	4	N				Alphanumeric	Military assigned position number
auth_occ_spec	C	5					Alphanumeric	Authorized occupational specialty
army_mil_rank_ab	C	3					Alphanumeric	Military rank abbreviation
army_mil_rank_cd	C	2					Alphanumeric	Military rank code
mil_auth_sex_cd	C	1					M or F	Military authorized gender code
auth_asi_cd	C	2					Alphanumeric	Authorized ASI code
req_lang_cd	C	2					Alphanumeric	Required language code
unit_awards								
award_eff_dt	C	8					YYYYMMDD	Award effective date
ind_ssn	C	9					Alphanumeric	Individual SSN

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
unit_award_cd	C	2					Alphanumeric	Unit award code
ind_sngl_awd_qy	C	2					1-99 or blank	The number of times the same award was given to an individual
unit_phone								
un_svc_dsg_cd	C	1	N				Alphanumeric	Unit service designator code
un_porg_dsg_id	C	3	N				Alphanumeric	Unit parent organization designator id
un_descr_dsg_id	C	2	N				Alphanumeric	Unit descriptive designator id
org_tel_type_cd	C	1	N				Alphanumeric	Organization telephone type code
inf_telnr_pur_cd	C	1	N				Alphanumeric	Information telephone purpose code
inf_tele_sys_cd	C	1	N				Alphanumeric	Information telephone system code
org_id	C	6					Alphanumeric	Organization id
inf_telephone_nr	C	28					Alphanumeric	Information telephone number
update_hold								
ind_ssn	C	9					Alphanumeric	Soldiers' SSN
app_flag	C	2					T = transproc	Application flag
warr_off								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
wo_mgmt_br_cd	C	2					Alphanumeric	Warrant officer management branch code
off_esa_dt	C	8					YYYYMMDD	Officer service agreement expiration date
wo_mos_lookup								
wo_mos_id	C	4	N				Alphanumeric	Warrant officer MOS id
wo_asi_cd	C	2	N				Alphanumeric	Warrant Officer ASI code
wo_mos_master								
wo_mos_id	C	4	N				Alphanumeric	Warrant Officer MOS id
wo_sqi_cd	C	1	N				Alphanumeric	Warrant Officer SQI id
mil_auth_sex_cd	C	1					M or F	Authorized gender code
wo_occ_spec								
ind_ssn	C	9	N				Alphanumeric	Individual SSN
occ_spc_desig_cd	C	1	N				Alphanumeric	Occupational specialty designator code
wo_mos_id	C	4					Alphanumeric	Warrant Officer MOS id
wo_sqi_cd	C	1					Alphanumeric	Warrant Officer SQI code
wo_asi_cd	C	2					Alphanumeric	Warrant Officer ASI code
workctr_appt								
org_wc_nm	C	20	N				Free form	Organization work center name
org_wc_appt_dt	C	8	N				YYYYMMDD	Organization work center appointment date
org_wc_appt_tm	C	4	N				HHMM	Organization work center appointment time
org_wc_appt_cp_nr	I	4					Numeric	Org. work center appointment capacity number
org_wc_appt_us_nr	I	4					Numeric	Organization work center appointment used number
org_wc_appt_orig_cd	C	1					Alphanumeric	Organization work center appointment originator code

MNEMONIC	TYP	LEN	NUL	REQ	KEY	LVL	RANGE	DESCRIPTION
workcntr_doc								
org_wc_nm	C	20	N				Free form	Organization work center name
org_wc_doc_nm	C	40					Free form	Organization work center document name
org_wc_doc_pr_cd	C	1					Alphanumeric	Organization work center document presence code
workcntr_gen_inf								
org_wc_nm	C	20	N				Free form	Organization work center name
org_wc_apt_rq_cd	C	1					Alphanumeric	Organization work center appointment required code
org_wc_apt_dr_hr	I	4					HHHH	Org. work center appointment duration in hrs.
org_wc_apt_dr_mn	I	4					Numeric	Org. work center appointment duration in minutes
org_addr_loc_tx	C	20					Free form	Organization address location text
org_wc_ip_pr_nr	C	3					Alphanumeric	Org. work center In-Processing priority number
instl_nm	C	25					Free form	Installation name
org_wc_prc_rq_cd	C	1					Alphanumeric	Organization work center processing required code
org_wc_offhrs_tx	C	100					Free form	Organization work center office hours text
un_office_sym	C	16					Alphanumeric	Unit office symbol
org_wc_ola_cd	C	1					Alphanumeric	Organization work center on-line access code
org_wc_op_pr_nr	C	3					Alphanumeric	Org. work center Out-Processing priority number
org_wc_sch_cd	C	1					Alphanumeric	Organization work center scheduling code
inf_telephone_nr	C	28					Alphanumeric	Organization work center telephone number
workcntr_quest								
org_wc_nm	C	20	N				Free form	Organization work center name
org_wc_disp_cd	C	3					Alphanumeric	Organization work center display code
org_wc_quest_tx	C	100					Free form	Organization work center question text
org_wc_qu_ty_cd	C	1					Alphanumeric	Organization work center question type code
workcntr_skel								
org_wc_nm	C	20	N				Free form	Organization work center name
weekday_cd	I	4	N				Numeric	Week day code
org_wc_apt_st_tm	C	4	N				HHMM	Organization work center appointment start time
org_wc_apt_cp_nr	I	4					Numeric	Organization work center appointment capacity number
weekday_nm	C	3					Alphanumeric	Weekday name

12 CROSS REFERENCE TABLE

12 CROSS REFERENCE TABLE

Explanation of Report Format

NOTE:	All information in this report, except RANGE, REQ and DESCRIPTION, is derived from the appropriate schemas.
MNEMONIC:	Column name of data element. Data elements are listed here in alphabetical order by mnemonic name, table name and database name.
TYP:	Type of Data Element
	B Bit String or Binary Data C Character D Decimal F Floating Point I Integer S Small Integer
LEN:	Length of Element (Characters)
NUL:	NULLs Allowed:
	- field may have a NULL value N field must have a non NULL value
IDX:	The highest applicable of the following is shown.
	- Element is not indexed 1 Element is a component of an index key with duplicates allowed 2 Element is an index key with duplicates allowed 3 Element is a component of an unique index key 4 Element is a unique index key
DB:	Database that contains data element. This field is suppressed and replaced with a '-' if either the element name and database of this element are the same as the previous element or if the database and table of the element are the same as the previous element.
TABLE:	Database table that contains data element. This field is suppressed and replaced with a '-' if the table and database of this element is the same as the previous element.
RANGE:	Range of allowed values of data element. This information should be derived from the Functional Description.

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
acct_strgh_qy	I	4	N		ilidbld	org_strength	Numeric	Account strength quantity
afrm_award_el_dt	C	6			ilidbld	mil_pers	YYMMDD	Date eligible for Armed Forces Reserve Medal award
app_flag	C	1			ilidbld	ind_assoc	T = transproc	Application flag
app_flag	C	2	N		ilidbld	update_hold	Alphanumeric	Application flag data
apt_score_qy	C	3	N		ilidbld	ind_pers_test	Alphanumeric	Appropriate score quantity
apt_score_qy	C	3			ilidbld	pers_test	Alphanumeric	Army personnel test score quantity
apt_yr_mo_dt	C	8	N		ilidbld	ind_pers_test	YYYYMMMD	Appropriate year, month and date
apt_yr_mo_dt	C	6	N		ilidbld	pers_test	YYYYMMMD	Appropriate year, month and date
ar_ml_rnk_eff_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Army military rank effective date
army_mil_rank_ab	C	3			ilidbld	mil_pers	Alphanumeric	Army military rank abbreviation
army_mil_rank_ab	C	3			ilidbld	unit_auth_str	Alphanumeric	Army military rank abbreviation
army_mil_rank_cd	C	2			ilidbld	mil_pers	Alphanumeric	Army military rank code
army_mil_rank_cd	C	2			ilidbld	unit_auth_str	Alphanumeric	Army military rank code
army_mil_rank_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Army military rank date
asg_arr_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Assignment arrival date
asg_deros_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Overseas assignment departure date
asg_dlos_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Assignment date of loss
asg_dprt_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Assignment departure date
asg_dros_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Assignment overseas departure date
asg_proj_arr_dt	C	8			ilidbld	mil_pers	YYYYMMMD	Assignment project arrival date
auth_asi_cd	C	2			ilidbld	unit_auth_str	Alphanumeric	Authorized ASI code
auth_ind_nm	C	27			ilidbld	ind_appt	Free form	Authorized individual name
auth_occ_spec	C	5			ilidbld	unit_auth_str	Alphanumeric	Authorized occupational specialty
award_eff_dt	I	8	N		ilidbld	id_bad_awards	Numeric	Award effective date
award_eff_dt	I	8	N		ilidbld	mil_decn_awards	Numeric	Award effective date
award_eff_dt	I	8	N		ilidbld	mil_forn_awards	Numeric	Award effective date
award_eff_dt	I	8	N		ilidbld	mil_svc_awards	Numeric	Award effective date
award_eff_dt	I	8	N		ilidbld	nonml_dec_awards	Numeric	Award effective date
award_eff_dt	I	8			ilidbld	sp_skl_bg_awards	Numeric	Award effective date

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
award_eff_dt	I	8	N		ilidbld	unit_awards	Numeric	Award effective date
basd	C	8			ilidbld	mil_pers	Alphanumeric	Military basic active service duty
birth_dt	C	8			ilidbld	ind_assoc	YYYYMMMD D	Birth date
birth_dt	C	8			ilidbld	individual	YYYYMMMD D	Birth date
bped	C	8			ilidbld	mil_pers	YYYYMMMD D	Basic pay entry date
civ_educ_lv_cd	C	1			ilidbld	individual	Alphanumeric	Civilian education level code
civ_empl_step_nr	C	2			ilidbld	civilian	Alphanumeric	Civilian employee step number
civ_mil_rt_cd	C	1			ilidbld	civilian	Alphanumeric	Civilian military return code
civ_occ_ser_nr	C	5			ilidbld	civilian	Alphanumeric	Civilian occupation service number
civ_pay_plan_cd	C	2			ilidbld	civilian	Alphanumeric	Civilian pay plan code
civ_py_gr_lvl_nr	C	2			ilidbld	civilian	Alphanumeric	Civilian pay grade level number
civ_rt_prg_cd	C	1			ilidbld	civilian	Alphanumeric	Civilian return program code
civ_rt_sc_dt	C	8			ilidbld	civilian	YYYYMMMD D	Civilian return service date
cmsnd_off_aoc_id	C	3			ilidbld	cmsnd_occ_spec	Alphanumeric	Commissioned officer AOC id
cmsnd_off_aoc_id	C	3	N	3	ilidbld	co_aoc_lookup	Alphanumeric	Commissioned officer AOC id
cmsnd_off_aoc_id	C	3	N	4	ilidbld	co_aoc_master	Alphanumeric	Commissioned officer AOC id
co_basic_br_cd	C	2	N		ilidbld	cmsnd_off	Alphanumeric	Commissioned officer basic branch code
co_cr_mgmt_cntl_cd	C	2			ilidbld	cmsnd_off	Alphanumeric	Commissioned officer carrier management control code
com_off_skill_cd	C	2			ilidbld	cmsnd_occ_spec	Alphanumeric	Commissioned officer skill code
com_off_skill_cd	C	2	N	3	ilidbld	co_aoc_lookup	Alphanumeric	Commissioned officer skill code
command_name	C	60			ilidbld	cmd_cd_lookup	Free form	Command Name
dep_os_arr_dt	I	4	N		ilidbld	sponsored_dep	YYYYMMMD D	Dependent overseas arrival date
depn_indic_cd	C	1			ilidbld	ind_assoc	Alphanumeric	Dependent indicator code
depn_tvl_appr_cd	C	1	N		ilidbld	sponsored_dep	Alphanumeric	Dependent travel approval code
enl_asl_cd	C	2	N	3	ilidbld	enl_mos_lookup	Alphanumeric	Enlisted ASI code
enl_asl_cd	C	2			ilidbld	enl_occ_spec	Alphanumeric	Enlisted ASI code
enl_mos_id	C	3	N	3	ilidbld	enl_mos_lookup	Alphanumeric	Enlisted MOS id
enl_mos_id	C	3	N	3	ilidbld	enl_mos_master	Alphanumeric	Enlisted MOS id
enl_mos_id	C	3			ilidbld	enl_occ_spec	Alphanumeric	Enlisted MOS id

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
enl_skl_lvl_nr	C	1	N	3	ilidbld	enl_mos_lookup	Alphanumeric	Enlisted skill level number
enl_skl_lvl_nr	C	1	N	3	ilidbld	enl_mos_master	Alphanumeric	Enlisted skill level number
enl_skl_lvl_nr	C	1			ilidbld	enl_occ_spec	Alphanumeric	Enlisted skill level number
enl_sqi_cd	C	1	N	3	ilidbld	enl_mos_master	Alphanumeric	Enlisted SQI code
enl_sqi_cd	C	1			ilidbld	enl_occ_spec	Alphanumeric	Enlisted SQI code
fm_ssn	C	9	N		ilidbld	sponsored_dep	Alphanumeric	Family member SSN
high_auth_gr	C	1			ilidbld	enl_mos_master	Alphanumeric	High authorized grade
id_bad_awd_cd	C	2	N		ilidbld	id_bad_awards	Alphanumeric	Identification Badge award code
ind_addr_city_nm	C	17			ilidbld	ind_address	Alphanumeric	Individual address city name
ind_addr_city_nm	C	17			ilidbld	ind_assoc_addr	Alphanumeric	Individual address city name
ind_addr_ctry_cd	C	2			ilidbld	ind_address	Alphanumeric	Individual address country code
ind_addr_ctry_cd	C	2			ilidbld	ind_assoc_addr	Alphanumeric	Individual address country code
ind_addr_forn_nr	C	10			ilidbld	ind_address	Alphanumeric	Individual address foreign number
ind_addr_forn_nr	C	10			ilidbld	ind_assoc_addr	Alphanumeric	Ind. address foreign number
ind_addr_forn_st	C	17			ilidbld	ind_address	Alphanumeric	Individual address foreign state
ind_addr_forn_st	C	17			ilidbld	ind_assoc_addr	Alphanumeric	Individual address foreign state
ind_addr_gtwy_ab	C	3			ilidbld	ind_address	Alphanumeric	Individual address gateway abbreviation
ind_addr_gtwy_ab	C	3			ilidbld	ind_assoc_addr	Alphanumeric	Individual address gateway abbreviation
ind_addr_gtwy_cd	C	2			ilidbld	ind_address	Alphanumeric	Ind. address gateway code
ind_addr_gtwy_cd	C	2			ilidbld	ind_assoc_addr	Alphanumeric	Ind. address gateway code
ind_addr_loc_tx	C	60			ilidbld	ind_address	Free form	Individual address location text
ind_addr_loc_tx	C	60			ilidbld	ind_assoc_addr	Free form	Individual address location text
ind_addr_type_cd	C	1	N	1	ilidbld	ind_address	Alphanumeric	Individual address type code
ind_addr_zip_cd	C	9			ilidbld	ind_assoc_addr	Alphanumeric	Individual address zip code
ind_adr_state_ab	C	2			ilidbld	ind_address	Alphanumeric	Ind. address state abbreviation
ind_adr_state_ab	C	2			ilidbld	ind_assoc_addr	Alphanumeric	Ind. address state abbreviation
ind_assoc_src_cd	C	1			ilidbld	ind_assoc	Alphanumeric	Individual associate source code
ind_benif_cd	C	1	N		ilidbld	ind_assoc	Alphanumeric	Individual Beneficiary ID Code
ind_birth_sta_cd	C	2	N		ilidbld	individual	Alphanumeric	Individual birth state code
ind_brth_city_nm	C	17	N		ilidbld	individual	Alphanumeric	Individual birth city name

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
ind_brth_ctry_cd	C	2	N		ilidbld	individual	Alphanumeric	Individual birth country code
ind_ctzp_ctry_cd	C	2	N		ilidbld	individual	Alphanumeric	Ind. citizenship country code
ind_ctzsp_org_cd	C	1	N		ilidbld	individual	Alphanumeric	Ind. citizenship organization code
ind_ethnic_cd	C	1	N		ilidbld	individual	Alphanumeric	Individual ethnic code
ind_fmlly_mbr_cd	C	2			ilidbld	ind_assoc	Alphanumeric	Individual family member code
ind_fmlly_ssn	C	9			ilidbld	ind_assoc	Alphanumeric	Individual family SSN
ind_hiv_tst_ymdt	C	6			ilidbld	individual	YYMMDD	Ind. HIV test Year-Month-Date
ind_marltl_st_cd	C	1			ilidbld	individual	Alphanumeric	Individual marital status code
ind_race_pop_cd	C	1			ilidbld	individual	Alphanumeric	Individual race population code
ind_sex_code	C	1	N		ilidbld	ind_assoc	M or F	Individual family member gender code
ind_sex_code	C	1	N		ilidbld	individual	M or F	Individual gender code
ind_sngl_awd_qy	C	2	N		ilidbld	id_bad_awards	1-99 or blank	The number of times the same award was given to an individual
ind_sngl_awd_qy	C	2	N		ilidbld	mil_decn_awards	1-99	The number of times the same award was given to an individual
ind_sngl_awd_qy	C	2	N		ilidbld	mil_forn_awards	1-99, (see notes).	The number of times the same Republic of Vietnam Unit of Gallantry award was given to an individual
Notes: BS = Bronze Star, SS = Silver Star, GS = Gold Star, P = Palm or blank.								
ind_sngl_awd_qy	C	2	N		ilidbld	mil_svc_awards	1-99, (see notes).	The number of times the same award was given to an individual
Notes: SR = Noncoartic Service Ribbon, or blank								
ind_sngl_awd_qy	C	2			ilidbld	sp_skl_bg_awards	1-99, blank or	The number of times the same award was given to an individual
ind_ssn	C	9	N	4	ilidbld	civilian	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	cmsnd_occ_spec	Alphanumeric	Individual SSN
ind_ssn	C	9	N	4	ilidbld	cmsnd_off	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	enl_occ_spec	Alphanumeric	Individual SSN
ind_ssn	C	9	N	4	ilidbld	enlisted	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	id_bad_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N	2	ilidbld	ind_address	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	ind_appt	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	ind_assoc	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	ind_assoc_addr	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	ind_mil_educ	Alphanumeric	Individual SSN

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
ind_ssn	C	9	N		ilidbld	ind_pers_test	Alphanumeric	Individual SSN
ind_ssn	C	9	N	3	ilidbld	ind_phone	Alphanumeric	Individual SSN
ind_ssn	C	9	N	4	ilidbld	individual	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	list	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	mil_decn_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	mil_forn_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N	4	ilidbld	mil_pers	Alphanumeric	Individual SSN
ind_ssn	C	9	N	4	ilidbld	mil_pers_asg	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	mil_separation	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	mil_sfpa	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	mil_svc_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	nonml_dec_award_s	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	oversea_asg	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	pers_test	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	sgli	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	soldier_lost_time	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	sponsored_dep	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	sp_skl_bg_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	unit_awards	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	update_hold	Alphanumeric	Soldiers' SSN
ind_ssn	C	9	N		ilidbld	warr_off	Alphanumeric	Individual SSN
ind_ssn	C	9	N		ilidbld	wo_occ_spec	Alphanumeric	Individual SSN
ind_telnr_type_cd	C	1	N	3	ilidbld	ind_phone	Alphanumeric	Individual phone number type code
ind_unifd_svc_cd	C	1			ilidbld	ind_assoc	Alphanumeric	Individual unified service code
ind_usctz_sta_cd	C	1			ilidbld	individual	Alphanumeric	US citizenship status code
ind_veap_stat_cd	C	1	N		ilidbld	mil_pers	Y or N	Veterans Educational Assistance flag
ind_vssn_cd	C	1			ilidbld	individual	Alphanumeric	Individual SSN Code
indiv_name	C	27			ilidbld	ind_assoc	Free form	Individual family name
indiv_name	C	27			ilidbld	individual	Free form	Individual name
inf_tele_sys_cd	C	1	N	3	ilidbld	ind_phone	Alphanumeric	Information telephone system code
inf_tele_sys_cd	C	1	N	3	ilidbld	unit_phone	Alphanumeric	Information telephone system code
inf_telephone_nr	C	28			ilidbld	ind_phone	Alphanumeric	Information telephone number
inf_telephone_nr	C	28			ilidbld	unit_phone	Alphanumeric	Information telephone number

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
inf_telephone_nr	C	28			ilidbld	workcntr_gen_inf	Alphanumeric	Information telephone number
inf_telnr_pur_cd	C	1	N	3	ilidbld	ind_phone	Alphanumeric	Information phone number purpose code
inf_telnr_pur_cd	C	1	N	3	ilidbld	unit_phone	Alphanumeric	Information phone number purpose code
in_mil_ed_cs_cp_dt	C	8	N		ilidbld	ind_mil_educ	YYYYMMDD	Individual military education course completed date
instl_nm	C	25			ilidbld	workcntr_gen_inf	Free form	Installation name
low_auth_gr	C	1			ilidbld	enl_mos_master	Alphanumeric	Low authorized grade
mil_ad_ent_cy_nm	C	17			ilidbld	mil_pers	Alphanumeric	Military active duty entry city name
mil_ad_ent_st_cd	C	2			ilidbld	mil_pers	Alphanumeric	Military active duty entry state code
mil_asg_posn_nr	C	4			ilidbld	mil_pers	Alphanumeric	Military assigned position indicator number
mil_asg_posn_nr	C	4	N	3	ilidbld	unit_auth_str	Alphanumeric	Military assigned position indicator number
mil_attached_cd	C	1			ilidbld	mil_pers	Y or N	Military attached indicator code
mil_auth_sex_cd	C	1			ilidbld	co_aoc_master	M or F	Military authorized gender code
mil_auth_sex_cd	C	1			ilidbld	enl_mos_master	M or F	Military authorized gender code
mil_auth_sex_cd	C	1			ilidbld	unit_auth_str	M or F	Military authorized gender code
mil_auth_sex_cd	C	1			ilidbld	wo_mos_master	M or F	Military authorized gender code
mil_char_scv_cd	C	1	N		ilidbld	mil_separation	See notes.	Military character service code
Notes: A = Honorable, B = Under Honorable Conditions, E = Dishonorable, F = Uncharacterized					C = Bad Conditions, D = Under other than Honorable Conditions,			
mil_curr_lv_qy	I	4			ilidbld	mil_pers_asg	Numeric	Military current days of leave quantity
mil_curr_tdy_qy	I	4			ilidbld	mil_pers_asg	Numeric	Military current days of TDY quantity
mil_decn_awd_cd	C	2	N		ilidbld	mil_decn_awards	Alphanumeric	Military decoration award code
mil_delay_sep_cd	C	1			ilidbld	mil_pers	Alphanumeric	Military delay separation code
mil_dy_stat_ab	C	3			ilidbld	mil_pers	Alphanumeric	Military duty status abbreviation
mil_ead_dt	C	8			ilidbld	mil_pers	YYYYMMDD	Military entry active duty date
mil_ed_class_no	C	3	N		ilidbld	ind_mil_educ	Alphanumeric	Military education class number
mil_ed_class_no	C	3	N		ilidbld	mil_educ_class	Alphanumeric	Military education class number

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
mil_ed_cls_end_dt	C	8	N		ilidbld	mil_educ_class	YYYYMMMD D	Military education class ending date
mil_ed_cls_str_dt	C	8	N		ilidbld	mil_educ_class	YYYYMMMD D	Military education class start date
mil_ed_crs_nme	C	37	N		ilidbld	ind_mil_educ	Alphanumeric	Military education course name
mil_ed_crs_nr	C	25	N		ilidbld	ind_mil_educ	Alphanumeric	Military education course number
mil_ed_crs_nr	C	25	N		ilidbld	mil_educ_class	Alphanumeric	Military education course number
mil_ed_crs_wk_qy	C	2	N		ilidbld	ind_mil_educ	Alphanumeric	Military education course week quantity (completed)
mil_ed_crs_wk_qy	I	4	N		ilidbld	mil_educ_class	Numeric	Military education course week quantity
mil_educ_lvl_cd	C	1			ilidbld	mil_pers	Alphanumeric	Military education level code
mil_ets_dt	C	8			ilidbld	enlisted	YYYYMMMD D	Military expiration term of service date
mil_foreign_awd_cd	C	2	N		ilidbld	mil_forn_awards	Alphanumeric	Military foreign award code
mil_last_pcs_dt	C	6			ilidbld	mil_pers	YYMMDD	Military last permanent change of station date
mil_lost_end_dt	I	4	N		ilidbld	soldier_lost_time	Numeric	Military Lost Time Ending Date
mil_lost_st_dt	I	4	N		ilidbld	soldier_lost_time	Numeric	Military Lost Time Start Date
mil_mv_desig_cd	C	2			ilidbld	mil_pers_asg	Alphanumeric	Military movement designator code
mil_pers_clas_cd	C	1			ilidbld	mil_pers	Alphanumeric	Military personnel class code
mil_pers_clas_cd	C	1	N		ilidbld	org_strength	See notes.	Military Personnel Classification Code
Notes: E = Enlisted, W = Warrant Officer, O = Commissioned Officer								
mil_photo_sus_dt	C	6			ilidbld	mil_pers	YYMMDD	Military photo suspense date
mil_phypr_dylm_cd	C	1			ilidbld	mil_pers	Alphanumeric	Military physical profile duty limitation code
mil_pot_gain_upc	C	5			ilidbld	mil_pers_asg	Alphanumeric	Military potential gaining UPC
mil_prev_dprt_dt	C	8			ilidbld	mil_pers_asg	YYYYMMMD D	Military previous departure date
mil_prev_lv_qy	I	4			ilidbld	mil_pers_asg	Numeric	Military previous days of leave quantity
mil_prev_rpt_dt	C	8			ilidbld	mil_pers_asg	YYYYMMMD D	Military previous report date
mil_prev_tdy_qy	I	4			ilidbld	mil_pers_asg	Numeric	Military previous days of TDY quantity
mil_pulhes	C	6			ilidbld	mil_pers	Alphanumeric	Military PULHES Code
mil_rec_stat_cd	C	1			ilidbld	mil_pers	Alphanumeric	Military recruitment status code

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
mil_sep_de_rsn_cd	C	1	N		ilidbld	mil_separation	Numeric	Military separation depart reason code
mil_sep_dt	C	8	N		ilidbld	mil_separation	YYYYMMMD D	Military separation date
mil_sep_rsn_cd	C	2	N		ilidbld	mil_separation	Alphanumeric	Military separation reason code.
mil_sep_typ_cd	C	1	N		ilidbld	mil_separation	See notes.	Military separation type code.
Notes: L,M = Type and Reason of Separation; P,R,S = Type and Reason for Retirement.								
mil_sfpa_exp_dt	C	8	N		ilidbld	mil_sfpa	YYYYMMMD D	Military SFPA Expiration Date
mil_sfpa_rept_dt	C	8	N		ilidbld	mil_sfpa	YYYYMMMD D	Military SFPA Report Date
mil_sfpa_rpty_cd	C	1	N		ilidbld	mil_sfpa	Alphanumeric	Military SFPA ... Code
mil_sfpa_rsn_cd	C	1	N		ilidbld	mil_sfpa	Alphanumeric	Military SFPA Reason Code
mil_sqt_score_qy	C	3			ilidbld	mil_pers	Alphanumeric	Military skill qualification test score quantity
mil_svc_agree_cd	C	1			ilidbld	mil_pers	Y or N	Military service agreement code
mil_svc_awd_cd	C	2	N		ilidbld	mil_svc_awards	Alphanumeric	Military service award code
mil_svc_comp_cd	C	1	N		ilidbld	mil_pers	See notes.	Military service component code
Notes: R - Regular Army, V - Reserve, G - National Guard, T - Temporary								
mil_ult_gain_upc	C	5			ilidbld	mil_pers_asg	Alphanumeric	Military ultimate gaining UPC
nonml_dec_awd_cd	C	2	N		ilidbld	nonml_dec_awards	Alphanumeric	Non-military decoration award code
occ_spc_desig_cd	C	1	N	3	ilidbld	cmsnd_occ_spec	Alphanumeric	Occupation specialty designator code
occ_spc_desig_cd	C	1	N	3	ilidbld	enl_occ_spec	Alphanumeric	Occupation specialty designator code
occ_spc_desig_cd	C	1	N	3	ilidbld	wo_occ_spec	Alphanumeric	Occupation specialty designator code
off_esa_dt	C	8			ilidbld	cmsnd_off	YYYYMMMD D	Commissioned officer service agreement expiration date
off_esa_dt	C	8			ilidbld	warr_off	YYYYMMMD D	Warrant officer service agreement expiration date
org_addr_city_nm	C	17			ilidbld	unit	Alphanumeric	Organization address city name
org_addr_ctry_cd	C	2			ilidbld	unit	Alphanumeric	Organization address country code
org_addr_forn_nr	C	9			ilidbld	unit	Alphanumeric	Organization address foreign number
org_addr_gtwy_ab	C	3			ilidbld	unit	Alphanumeric	Organization address gateway abbreviation
org_addr_gtwy_cd	C	2			ilidbld	unit	Alphanumeric	Organization address gateway code

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
org_addr_loc_tx	C	60			ilidbld	unit	Free form	Organization address location text
org_addr_loc_tx	C	20			ilidbld	workcntr_gen_inf	Free form	Organization address location text
org_addr_zip_cd	C	9			ilidbld	unit	Alphanumeric	Organization address zip code
org_adr_state_ab	C	2			ilidbld	unit	Alphanumeric	Org. address state abbreviation
org_id	C	6			ilidbld	individual	Alphanumeric	Organization id
org_id	C	6	N	3	ilidbld	unit	Alphanumeric	Organization id
org_id	C	6	N		ilidbld	unit_phone	Alphanumeric	Organization id
org_tel_type_cd	C	1	N	3	ilidbld	unit_phone	Alphanumeric	Organization telephone type code
org_wc_appt_dt	C	8			ilidbld	ind_appt	YYYYMMMD D	Organization work center appointment date
org_wc_appt_dt	C	8	N	3	ilidbld	workcntr_appt	YYYYMMMD D	Organization work center appointment date
org_wc_appt_tm	C	4			ilidbld	ind_appt	HHMM	Org. work center appointment time
org_wc_appt_tm	C	4	N	3	ilidbld	workcntr_appt	HHMM	Organization work center appointment time
org_wc_apt_cp_nr	I	4			ilidbld	workcntr_appt	Numeric	Organization work center appointment capacity number
org_wc_apt_cp_nr	I	4			ilidbld	workcntr_skel	Numeric	Organization work center appointment capacity number
org_wc_apt_dr_hr	I	4			ilidbld	workcntr_gen_inf	Numeric	Organization work center appointment duration in hours
org_wc_apt_dr_mn	I	4			ilidbld	workcntr_gen_inf	Numeric	Organization work center appointment duration in minutes
org_wc_apt_rq_cd	C	1			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center appointment required code
org_wc_apt_st_tm	C	4	N	3	ilidbld	workcntr_skel	HHMM	Organization work center appointment start time
org_wc_apt_us_nr	I	4			ilidbld	workcntr_appt	Numeric	Organization work center appointment used number
org_wc_cmp_dt	C	8			ilidbld	ind_appt	YYYYMMMD D	Organization work center completion date
org_wc_cmp_tm	C	4			ilidbld	ind_appt	HHMM	Organization work center completion time
org_wc_commnt_tx	C	150			ilidbld	ind_appt	Free form	Organization work center comments text
org_wc_disp_cd	C	3			ilidbld	workcntr_quest	Alphanumeric	Organization work center display code
org_wc_doc_nm	C	40			ilidbld	workcntr_doc	Free form	Organization work center document name

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
org_wc_doc_pr_cd	C	1			ilidbld	workcntr_doc	Alphanumeric	Organization work center document presence code
org_wc_in_out_cd	C	1	N	3	ilidbld	ind_appt	Alphanumeric	Organization work center In-processing/Out processing code
org_wc_ip_pr_nr	C	3			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center In-processing priority number
org_wc_nm	C	20	N	3	ilidbld	ind_appt	Alphanumeric	Organization work center name
org_wc_nm	C	20	N	3	ilidbld	workcntr_appt	Alphanumeric	Organization work center name
org_wc_nm	C	20	N		ilidbld	workcntr_doc	Alphanumeric	Organization work center name
org_wc_nm	C	20	N	4	ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center name
org_wc_nm	C	20	N	2	ilidbld	workcntr_quest	Alphanumeric	Organization work center name
org_wc_nm	C	20	N	3	ilidbld	workcntr_skel	Alphanumeric	Organization work center name
org_wc_offhrs_tx	C	100			ilidbld	workcntr_gen_inf	Free form	Organization work center office hours text
org_wc_ola_cd	C	1			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center on-line access code
org_wc_op_pr_nr	C	3			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center outprocessing priority number
org_wc_prc_rq_cd	C	1			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center processing required code
org_wc_qu_ty_cd	C	1			ilidbld	workcntr_quest	Alphanumeric	Organization work center question type code
org_wc_quest_tx	C	100			ilidbld	workcntr_quest	Free form	Organization work center question text
org_wc_sch_cd	C	1			ilidbld	workcntr_gen_inf	Alphanumeric	Organization work center scheduling code
os_asgt_compl_dt	I	4	N		ilidbld	oversea_asg	Numeric	Overseas Assignment Completion Date
os_asgt_start_dt	I	4	N		ilidbld	oversea_asg	Numeric	Overseas Assignment Start Date
per_tst_apt_ar_cd	C	2	N	3	ilidbld	pers_test	Alphanumeric	Personnel test aptitude arrival code
pers_si_comp_cd	C	1			ilidbld	individual	Alphanumeric	Personnel security investigation completion code
pers_si_comp_dt	C	8			ilidbld	individual	YYYYMMDD	Personnel security investigation completion date
pers_si_init_cd	C	1			ilidbld	individual	Alphanumeric	Personnel security investigation initiation code
pers_si_init_dt	C	8			ilidbld	individual	YYYYMMDD	Investigation initiation date

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
pers_test_typ_cd	C	2	N	3	ilidbld	ind_pers_test	Alphanumeric	Personnel test type code
pers_test_typ_cd	C	2	N		ilidbld	pers_test	Alphanumeric	Personnel test type code
pri_lang_cd	C	2			ilidbld	individual	Alphanumeric	Primary language code
prom_indic_cd	C	1			ilidbld	mil_pers	Alphanumeric	Promotion indicator code
rel_id	C	2	N	3	ilidbld	ind_assoc	Alphanumeric	Sequential relation id
rel_id	C	2	N	3	ilidbld	ind_assoc_addr	Alphanumeric	Sequential relation id
req_lang_cd	C	2			ilidbld	unit_auth_str	Alphanumeric	Required language code
ret_dt	C	8	N		ilidbld	mil_separation	YYMMDD	Retirement Date
sec_lang_cd	C	2			ilidbld	individual	Alphanumeric	Secondary language code
separate_addr_cd	C	1			ilidbld	ind_assoc	Alphanumeric	Separate address code
sgli_ben_ent_cd	C	2	N		ilidbld	sgli	Alphanumeric	Serviceman's Group Life Insurance
sgli_ent_eff_dt	C	8	N		ilidbld	sgli	YYYYMMDD	SGLI Entitlement Effective Date
sgli_entlmnt_cd	C	1	N		ilidbld	sgli	Alphanumeric	SGLI Entitlement Code
sol_reent_el_cd	C	2	N		ilidbld	enlisted	Alphanumeric	Reenlistment eligibility/immediate reenlistment Prohibition code
sp_skl_bg_awd_cd	C	2	N		ilidbld	sp_skl_bg_awards	Alphanumeric	Military Special Skill Badge Award code
stru_command_cd	C	2	N	4	ilidbld	cmd_cd_lookup	Alphanumeric	Command code
stru_command_cd	C	2			ilidbld	unit	Alphanumeric	Command code
un_descr_dsg_id	C	2			ilidbld	individual	Alphanumeric	Unit Descriptive Designator id
un_descr_dsg_id	C	2	N	3	ilidbld	unit	Alphanumeric	Unit Descriptive Designator id
un_descr_dsg_id	C	2	N	3	ilidbld	unit_auth_str	Alphanumeric	Unit Descriptive Designator id
un_descr_dsg_id	C	2	N	3	ilidbld	unit_phone	Alphanumeric	Unit Descriptive Designator id
un_descr_dsg_id	C	2	N		ilidbld	org_strength	Alphanumeric	Unit Descriptive Designator id
un_office_sym	C	16			ilidbld	unit	Alphanumeric	Unit office symbol
un_office_sym	C	16			ilidbld	workcntr_gen_inf	Alphanumeric	Unit office symbol
un_porg_dsg_id	C	3			ilidbld	individual	Alphanumeric	Unit parent organization designator id
un_porg_dsg_id	C	3	N	3	ilidbld	org_strength	Alphanumeric	Unit parent organization designator id
un_porg_dsg_id	C	3	N	3	ilidbld	unit	Alphanumeric	Unit parent organization designator id
un_porg_dsg_id	C	3	N	3	ilidbld	unit_auth_str	Alphanumeric	Unit parent organization designator id
un_porg_dsg_id	C	3	N	3	ilidbld	unit_phone	Alphanumeric	Unit parent organization designator id
un_svc_dsg_cd	C	1			ilidbld	individual	Alphanumeric	Unit service designator code

MNEMONIC	TYP	LEN	NUL	IDX	DB	TABLE	RANGE	DESCRIPTION
un_svc_dsg_cd	C	1	N		ilidbld	org_strength	Alphanumeric	Unit service designator code
un_svc_dsg_cd	C	1	N	3	ilidbld	unit	Alphanumeric	Unit service designator code
un_svc_dsg_cd	C	1	N	3	ilidbld	unit_phone	Alphanumeric	Unit service designator code
unit_name	C	30			ilidbld	unit	Alphanumeric	Unit name
weekday_cd	I	4	N	3	ilidbld	workcntr_skel	Alphanumeric	Weekday code
weekday_nm	C	3	N		ilidbld	workcntr_skel	Alphanumeric	Weekday name
wo_asi_cd	C	2	N	3	ilidbld	wo_mos_lookup	Alphanumeric	Warrant officer ASI code
wo_asi_cd	C	2	N	3	ilidbld	wo_mos_master	Alphanumeric	Warrant officer ASI code
wo_asi_cd	C	2			ilidbld	wo_occ_spec	Alphanumeric	Warrant officer ASI code
wo_mgmt_br_cd	C	2			ilidbld	warr_off	Alphanumeric	Warrant officer Management branch code
wo_mos_id	C	4	N	3	ilidbld	wo_mos_lookup	Alphanumeric	Warrant officer MOS id
wo_mos_id	C	4	N	3	ilidbld	wo_mos_master	Alphanumeric	Warrant officer MOS id
wo_mos_id	C	4			ilidbld	wo_occ_spec	Alphanumeric	Warrant officer MOS id
wo_sqi_cd	C	1	N	3	ilidbld	wo_mos_master	Alphanumeric	Warrant officer SQI id
wo_sqi_cd	C	1			ilidbld	wo_occ_spec	Alphanumeric	Warrant officer SQI id